REVIEW OF FORESTRY RESEARCH AND FOREST SERVICE FACILITIES

JOINT HEARING

BEFORE THE

SUBCOMMITTEE ON FORESTS, FAMILY FARMS, AND ENERGY

AND THE

SUBCOMMITTEE ON DEPARTMENT OPERATIONS, RESEARCH, AND FOREIGN AGRICULTURE

OF THE

COMMITTEE ON AGRICULTURE
HOUSE OF REPRESENTATIVES

ONE HUNDRED FIRST CONGRESS

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REVIEW OF FORESTRY RESEARCH AND FOREST SERVICE FACILITIES

WEDNESDAY, SEPTEMBER 20, 1989

HOUSE OF REPRESENTATIVES, SUBCOMMITTEE ON FORESTS, FAMILY FARMS, AND ENERGY, JOINT WITH SUBCOMMITTEE ON DEPARTMENT OPERATIONS, RESEARCH, AND FOREIGN AGRICULTURE, COMMITTEE ON AGRICULTURE,
Washington, DC.

The subcommittees met, pursuant to notice, at 10:20 a.m., in room 1300, Longworth House Office Building, Hon. Harold L. Volkmer (chairman of the Subcommittee on Forests, Family Farms, and Energy) presiding, together with Hon. George E. Brown, Jr. (chairman of the Subcommittee on Department Operations, Research, and Foreign Agriculture).

Present from the Subcommittee on Forests, Family Farms, and Energy: Representatives Volkmer, Olin, Stallings, Jontz, Johnson, Morrison, Smith, Schuette, and Herger.

Present from the Subcommittee on Department Operations, Research, and Foreign Agriculture: Representatives Brown, Stenholm, Olin, Volkmer, Jontz, Roberts, and Morrison.

Also Present: Representative E (Kika) de la Garza, chairman of the committee.

Staff present: Daniel E. Brinza, counsel; Joseph Muldoon, assistant counsel; John E. Hogan, minority counsel; Glenda L. Temple, clerk; Timothy P. De Coster, William A. Stiles, Jr., Rob Myers, James R. Lyons, and Allison Biggs.

OPENING STATEMENT OF HON. HAROLD L. VOLKMER, A REPRESENTA- TIVE IN CONGRESS FROM THE STATE OF MISSOURI

Mr. VOLKMER. The meeting will come to order.

The Subcommittee on Forests, Family Farms, and Energy is meeting this morning with the Subcommittee on Department Operations, Research, and Foreign Agriculture, to review two subjects in which we have mutual interests.

First, we will review the status of forestry research activities in the Forest Service. Following that, we will review Forest Service facilities, both research and administrative.

Our intent in conducting this hearing is to develop a greater understanding of where the agency is headed with its research program, and how well the Forest Service is able to carry out its mission with existing facilities.

In particular, we are interested in considering recent budget trends in those two important areas, so that we may be better pre-

pared for the next round of budget and appropriations process. We need to know if funding has been sufficient to meet the Nation's needs in these areas, and what activities are being foregone due to funding limitations, in order to make reasoned judgment as to the allocation of money for Forest Service programs next year.

We plan to continue this detailed review of Forest Service programs in the future, and any comments from members as to particular areas of interest will be welcome.

Before yielding, I want to express my appreciation to the chairman of the Department Operations Subcommittee, Mr. Brown, for his interest in these subjects, and his cooperation in developing this hearing. We first spoke of these matters during our organizational meetings early in the year. And I am pleased we have been able to include this joint hearing in our schedule.

At this time, I yield to the gentleman from Washington for any comments he would like to make.

OPENING STATEMENT OF HON. SID MORRISON, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF WASHINGTON

Mr. MORRISON. Thank you, Mr. Chairman. I am pleased that we are holding these hearings.

We look at these research programs and have to recognize and appreciate the opportunities that are here, and the fact how much we count on the results of this research when we get down to some difficult programs. The Forest Service has more than 700 scientists in 76 locations across the Nation. And as I have visited them through the years, I have appreciated their efforts.

I guess our goal today is to measure when those efforts need additional support at the congressional level.

We look at the work that they are doing on fire, on forest products, on global warming acid rain. And, of course, in my own area now, information we need on the spotted owl where the appreciation really comes into focus.

I am also going to be interested in hearing about their facility management program. I've had the major facility in my area, a warehouse burnt down this last year, and I am somewhat frustrated by the inability to get it replaced. So we will listen to these comments.

Mr. Chairman, I have a formal statement that I ask to be part of the record.

Mr. VOLKMER. It will be made a part of the record at this point in the record.

[The statement of Mr. Morrison follows:]

STATEMENT OF
THE HONORABLE SID MORRISON
BEFORE THE FOREST, FAMILY FARMS
AND ENERGY SUBCOMMITTEE

SEPTEMBER 20, 1989

Mr. Chairman, I am pleased to join you today to consider H.R. 2144, the Urban and Community Forestry Act, introduced by Mr. Jontz of Indiana. Since our hearing on this bill on June 7, Mr. Jontz has gone to a good deal of effort to revise and streamline his bill offering a proactive approach to some everyday forestry problems in our communities. I commend hi for his efforts and look forward to reporting this legislation from the Subcommittee today.

Also on our agenda today is an opportunity to hear from the Forest Service on their ongoing Research activities and the Service's facilities situation. It is our goal to review the funding trends for these areas, and use this information to make more informed decisions in these areas during the budget cycle next year. I welcome our witnesses and look forward to hearing their testimony.

The Forest Service's Forest Research program is the largest forestry research program in the world, reflecting an annual budget of over $130 million. The mission of the research program directs the more than 700 scientists in 76 locations across the nation including the Pacific-Northwest, conducting over 2,300 individual studies, to produce new knowledge and improved methods of natural resource management. I am pleased to share the Forest Service's view that this work has resulted in forests which better meet our nation's needs. Their many challenges include Fire Research, Forest Products Research, Global Warming and Acid Rain research. It is truly a fascinating branch of the Forest Service family tree.

In addition to research, we will also hear testimony regarding Forest Service Facility management. I welcome this chance to learn more about the unique facility requirements of this agency especially since most of us only see their work in the great outdoors, we don't take the time to consider all the work that is done and housed behind the scenes. I became aware first hand of vital role the facilities play in the work of the Forest Service when a warehouse belonging to one of the ranger districts in my Congressional district was destroyed by fire. Not only was the structure crucial to their service to the public, but also the equipment house inside which had been collected for decades. I share the Ranger's frustration of not finding the funds to have the warehouse rebuilt and the contents replaced this budget cycle and look forward to working with the Forest Service toward that goal in the next cycle.

Thank you, Mr. Chairman.

Mr. VOLKMER. Does the gentleman from Oregon wish to make a statement.

OPENING STATEMENT OF HON. ROBERT F. (BOB) SMITH, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF OREGON

Mr. SMITH. Thank you, Mr. Chairman.

I think these are timely kinds of hearings, especially in the Northwest dependent upon scientific findings and Forest Service research, of course, and we are dependent on adequate facilities to fulfile the mission of the Forest Service.

There are those of us that have thought that it is sort of punctilious, and relied upon the manager of forests. Unfortunately, the courts are doing it today. I don't think they're qualified. Sometimes their research provides an opportunity to move courts. Sometimes that research is ignored even by the Forest Service itself.

I'll be interested in discussing this research.

Mr. VOLKMER. I now recognize the chairman of the Subcommittee on Department Operations, Research, and Foreign Agriculture. He has worked with me on these hearings, and I appreciate his work for a short statement.

The gentleman from California.

OPENING STATEMENT OF HON. GEORGE E. BROWN, JR., A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA

Mr. BROWN. Thank you very much, Mr. Chairman.

Welcome to you, gentlemen.

I think it goes without saying that you would expect me to have a strong interest in the research programs of the service, as well as the entire Department of Agriculture, which I do. And it a part of my general concern would be help for the American research establishment.

It's my view, which I think is shared by Mr. Volkmer and others too, that we have tended to underemphasize the importance of research and research related activities throughout the Department of Agriculture, and we welcome signs that there will be an effort to correct this in a substantial way in the near future with the support of the Administration.

And we would like to cooperate in every way possible to do that. I think that looking at the American economy as a whole, we see that some of the problems that we're encountering today have been due to the fact that other competitive economies around the world have invested more in research and development than we have. And they have seen a growth in their rate of investment that's considerably higher than ours.

Now, it's not your job to look at global macroeconomics or anything like that. But to correct an overall situation of that sort means that every segment of the American enterprise has to look at what they are doing. And we are seeing a new interest in that.

In another committee that both Mr. Volkmer and I serve on, we have seen the initiation of a process for improving the quality of American industry and American services, sort of exemplified by an award being given in the Commerce Department named after the late Secretary, Malcolm Baldridge, in which American indus-

tries are encouraged to cooperate and to emphasize the concept of quality within their own enterprise.

That kind of an attitude needs to be developed throughout the American system, including the American Government and including the Department of Agriculture and the Forest Service.

You may feel—I don't know, I haven't read your statement—that you are spending more money that you need to on research now. I can assure you that you are not. And that has nothing to do with possibly the needs of production forestry. I think you are well on top of the problems of growing trees and getting better production out of the resources that you have.

What you need to face up to today is a whole new set of factors that require refit. Global economics, for example, they are increasing pressure on ecological concerns and environmental concerns. The problem of the spotted owl, for example, requires a hell of a lot more research than we put into it. There seems to be a lot of controversy over whether or not it will survive in a nonwhole growth forest habitat. And we don't have enough information to indicate that, and yet that's a pressing problem.

The thrust of what I'm saying is we need to take a whole new look in what we are doing in terms of expanding our knowledge of the total environment in which we are working, and that applies to the Forest Service. We want to encourage you to do that. And we want to start off with these hearings to give you an opportunity to tell us what you think the system is like, what your needs are, and then to prod you a little bit if we think that you're not thinking in broad enough terms.

And we appreciate your being here and the opportunity to have this exchange with you.

Mr. VOLKMER. I thank the gentleman from California for the statement.

We have with us today two witnesses, Mr. J. A. Sesco, Deputy Chief of Research, Forest Service, USDA, and Mr. James C. Overbay, Deputy Chief, National Forest System, Forest Service, USDA.

As I understand it, Mr. Sesco, you will address the research part, and Mr. Overbay will address the facilities part, is that correct?

Mr. SESCO. That's correct.

Mr. VOLKMER. What we will do is we will go and let you proceed with the statements first before we ask any questions, and then we can ask either one of you questions as we go rather than take one, either one.

Your statements will be made a part of the record, and you may either review those statements in full of summarize, however you so desire.

We'll begin with Mr. Sesco.

STATEMENT OF JERRY A. SESCO, DEPUTY CHIEF, RESEARCH, FOREST SERVICE, U.S. DEPARTMENT OF AGRICULTURE, ACCOMPANIED BY ELDON ROSS, ASSOCIATE DEPUTY CHIEF

Mr. SESCO. Thank you. Mr. Chairman and members of the subcommittee.

Mr. Chairman, I am accompanied today by Dr. Eldon Ross, an Associate Deputy Chief of Research in the Forest Service.

Let me begin by saying that I appreciate the opportunity to appear before this committee today to discuss forestry research, and more specifically to give you an overview of Forest Service research programs.

I also would like to take this opportunity, Mr. Chairman, to thank both of these subcommittees for the support they have given the Forest Service research over the years.

At this time I would like to summarize the statement which I submitted for the record.

We have been in the forestry research business for a long time. Even before the Forest Service was officially formed in the early 1900's we had a modest research program. Our charter to conduct forestry research was updated and broadened and, in fact, reaffirmed in the Forest and Rangeland Renewable Resources Research Act in 1978. Our authority is also directly tied to the Resources Planning Act of 1974 and the National Forest Management Act of 1976.

Mr. Chairman, there are four points that I would like to make today.

First, we believe that forestry research is a key to solving many of the most pressing national and global environmental problems that we face.

Second, the Forest Service research program, a very unique program in the entire world, has the flexibility to make immediate impact on these high-priority national and global problems.

Third, I want to stress how important it is for Forest Service research, or any research organization, to maintain a strong, stable and viable base program so that it will have the ability to respond quickly to changing priorities and future problems, and remain competitive in the research arena.

Fourth, I want to point out that Forest Service research is currently engaged in a strategic planning process to map out its direction to the year 2000.

I would like to briefly address these four points.

Our American lifestyle currently is imposing some very severe conflicting demands on the Nation's natural resources. These conflicting demands are straining our human and financial capabilities, and they are, in fact, limiting the potential long-term productivity of forest and associated resources. An essential key, we believe, to reversing these trends is research, because research provides the knowledge and the technology needed to manage forest and associated resources so they can produce the many products, and amenities that society demands, and at the same time, without sustaining damage to their productive potential.

The Forest Service research mission, very briefly, is to develop the knowledge and the technology needed to increase environmental and economic values of all of the 1.6 billion acres of forests and associated rangelands. We employ about 720 scientists. In addition, we have 1,700 technical and administrative support people. Last year our scientists produced over 2,000 scientific and technical publications.

We have eight regional forest experiment stations and our forest products laboratory in Madison, Wisconsin. These are really the administrative hubs of our effort.

Our scientists are organized into 190 research work units located at 74 different locations around the country. The work is geographically dispersed so that we can address regional problems as well as national problems. We cover ecosystems from the Pacific islands to Maine and from the Arctic to the Caribbean Islands.

About 40 percent of our research program can be characterized as basic scientific research. The remainder is devoted to applied and developmental research.

Our program, we believe, is very balanced in five broad functional areas. I direct your attention to the chart over here, which shows the balance in our budget line items. You might not be able to read this, but beginning at the top and going clockwise, forest protection research includes our fire and atmospheric sciences and forest insect and disease research, and, second, our forest products and harvesting research concentrates on improving the utilization of wood and minimizing adverse impacts of timber harvesting.

Third, forest environment research includes our watershed management research and studies to enhance and sustain wildlife and fish habitat and rangelands. Fourth, our timber management research focuses on the growth and the management of trees. And lastly, our resources analysis research deals with forest inventories, economics, and recreation research.

This balance among these five areas gives us some unique capabilities for solving problems. Our fundamental attributes in forest service research is a large, stable, balanced, and geographically dispersed program. We are able to address multidisciplinary and ecological problems. And this gives us tremendous flexibility. And flexibility, Mr. Chairman, is really an asset in a research organization when we have to respond to changing national and regional priorities.

Our flexibility can be best demonstrated by our priority research program. This is a program which identifies research areas in which we respond to critical and emerging research problems. For example, the six priority research areas that have been identified in our 1990 budget are global climate change, catastrophic forest fires, water quality, expanding economic opportunities through new wood products, southern forest productivity, and threatened, endangered and sensitive plant and animal species.

Now, these are a little bit different from what our priorities were a couple of years ago. What this reflects is our ability to shift research efforts to concentrate on the highest priority national and global problems.

As I mentioned earlier, a strong base program is important. A stable base program over the years has permitted Forest Service research to continue research on a broad array of problems for the past 50 years. We must continue to be able to adjust program levels and priorities in response to critical needs, and also to help control Federal spending. But at the same time we are trying to maintain our base program.

I direct your attention to the next chart, which indicates our funding trends in the last 10 years. Although Forest Service research funding in actual dollars has risen from $109 million in 1980 to $138 million in 1989, constant dollars have remained essentially the same since 1980. This situation requires that Forest Serv-

ice research annually select the highest priority research problem from among competing priorities. And, we try to manage our existing research program in a cost-effective manner.

Now, rather than compromise the quality of science in Forest Service research, we have reduced the number of scientists from 964 in 1980 to 720 in 1990. This is a decrease of about 25 percent. By reducing the number of scientists, we have been able to acquire some modern equipment to keep us on the cutting edge of science.

Mr. Chairman, given the importance of forestry research, I have embarked on two separate but related efforts to examine the status of our research programs, and to take a look into the future. First, the Forest Service is supporting the National Research Council in a study of forestry research in the United States. This is jointly funded by the Forest Service, by the Cooperative State Research Service, by the National Association of Forestry Schools and Colleges, and by the Society of American Foresters.

The objective of this study is to examine the current trends in forestry research and the future needs. We expect a final report to be delivered to us in February 1990.

Concurrent with this study by the National Research Council, Mr. Chairman, we have engaged Forest Service research in a strategic planning effort to clarify what our research mission is and should be. We are looking at our customer needs. We are trying to set long-term direction and goals for our research program.

We are doing this because we want to improve both our ability to respond to emerging needs, and we want to improve our research competitiveness. This effort will improve the public's awareness and understanding of Forest Service research and will help us become more proactive and improve our scientific productivity and efficiency.

There is much more detail, Mr. Chairman, in the statement that I have submitted for the record. But for the moment, that concludes my statement. I will be happy to answer questions and provide any additional information that you may desire.

[The prepared statement of Mr. Sesco appears at the conclusion of the hearing.]

Mr. VOLKMER. All right.

Before we go to questions, we will now hear from Mr. Overbay.

STATEMENT OF JAMES C. OVERBAY, DEPUTY CHIEF, NATIONAL FOREST SYSTEM, FOREST SERVICE, U.S. DEPARTMENT OF AGRICULTURE

Mr. OVERBAY. Thank you, Mr. Chairman and members. I also appreciate the opportunity to appear before you and comment on Forest Service facilities.

As you know, the mission of the Forest Service is to care for the Nation's forests and rangelands and serve the needs of the people who own them. We manage over 191 million acres of National Forest System lands, including 156 national forests, 19 national grasslands, 83 experimental forests and ranges, and 13 land utilization projects.

We currently carry out this mission using approximately 52,000 full-, part-time, and temporary employees. Like other agencies, we

have traditional office space needs. However, we also have a variety of unique facility requirements that go beyond what we normally think of an agency requiring. Some unique examples might be cabins required in the back country to provide security and protection for employees in grizzly bear country that are working on wildlife projects or maintaining trails, or special facilities that are required for providing equipment for fire fighting retardant bombers, etcetera.

There are also many unseen but important factors such as safe water and sewer systems, waste collection and treatment, electrical distribution, protection from hazardous conditions. All of these we have to consider in meeting our facility needs. And we have special storage and protection and needs and all of the different types of materials and equipment that we use.

Facility development is currently funded primarily from the facilities construction appropriation. This includes money in three specific program areas: Our FA&O construction line item, which is for the construction of buildings and related facilities that support both the State and private National Forest System programs; research construction that provides facilities for research activities; and then the third is recreation construction.

And, as you have requested, I am going to limit my discussion today only to the first two, FA&O and research facilities.

We have facilities located in 46 States and Puerto Rico and currently have approximately 16,000 permanent and temporary buildings, trailers, and leased spaces. Over 40 percent of these facilities owned by the Forest Service are more than 40 years old. A lot of these older facilities are not readily adaptable to new communication technology or modern research. Also, a lot of them do not have adequate fire access or access for handicapped people. And in some the presence of asbestos, unsafe drinking water, radon or other hazardous materials is present.

In fiscal year 1989, approximately $10 million was appropriated to address these and other related concerns. And we will continue to annually review our very highest priority needs consistent of course with the recognition to try to reduce the Federal deficit and address competing priorities.

We also currently lease approximately 15 percent of our total facility space. Our cost per lease facilities in 1987 was about $46 million.

I might just show you quickly a couple charts that kind of demonstrate very graphically the situation that we are in.

Mr. Chairman, this shows going back to the last 10 years about what our backlog on total construction facility needs are. And it has risen from about $250 million to about $270 million today.

This other chart shows what has happened with funding for facilities construction over that same period of time. The dotted line on the top represents what the agency request has been. The bottom line, the small thin line is what the actual appropriation was, and the heavier line is adjusted to fiscal year 1990 dollars what was appropriated.

Our overall goal is to ensure safe, cost effective, and usable facilities to support our mission. We believe we have sound facilities

management regulations and procedures in place to accomplish this.

Some of the things that we have done to extend our appropriated dollars, we have worked with other agencies in a number of locations to share facilities. In a number of States where we have had the opportunity, we have used Job Corps Center personnel or prison crews to construct facilities.

We also have some savings in some other programs. And we will use some of those program dollars to support facilities construction within the $100,000 congressional threshold for individual projects.

We have also, as you are aware, looked at some opportunities to use the authority of the act of August 3, 1956, to exchange unneeded administrative sites for other sites with newer existing facilities that would better serve our needs. But in line with our agreement, all of these exchanges involving the acquisition of administrative sites will be submitted to this committee for oversight regardless of value.

One other way that we have tried to reduce our needs for space is in looking at ways of sharing staff specialists among our organizational units. And also since 1980 we have reduced our permanent and temporary work force by roughly 6,400 positions, which helps some in alleviating those space needs.

We believe these methods have helped us meet our goals and obtain the maximum use of the amounts that have been available through appropriation for facilities construction and maintenance.

I think with that, Mr. Chairman, I will be happy to answer any questions that you might have.

[The prepared statement of Mr. Overbay appears at the conclusion of the hearing.]

Mr. VOLKMER. Thank you very much, Mr. Overbay and Mr. Sesco, for your testimony. I will now proceed with questions and recognize the gentleman from California for any questions he may have.

Mr. BROWN. Gentlemen, I have been looking at these historical funding for research and for facilities, the charts that I presume were supplied by your Department. And I note that apparently the Congress has over the last 10 years appropriated substantially more than the President's budget, and in some cases even more than the Department request.

I am not sure what this indicates. I want to ask you to comment on it, first of all. Because, of course, one thing it indicates to me is that the Congress has been more supportive of your budget than either the President or the Secretary has been.

I do not expect you to say anything derogatory about these two gentlemen, but could you give us some comments as to why this may have occurred?

Mr. SESCO. Your analysis is very correct, Congressman Brown. We have not fared that well when our budget moves through the process. For example, our agency request for Forest Service research in 1990 was $157.8 million. But by the time it came through the Department and OMB, it was considerably less than that. I think it was around $134 million or so.

Mr. BROWN. I do not have the 1990 figures on these charts.

Mr. SESCO. But that is something that happens almost every year. We present what our needs are. But during the budgeting process, and because of the deficit reduction program, by the time we get to the President's budget, it is considerably less. And you are correct, our subcommittee has been favorable to us in restoring some of those reductions.

Mr. BROWN. We would like to take full credit for that here, but it is really the Appropriations Committee that——

Mr. SESCO. I was referring to the Appropriations Subcommittee.

Mr. BROWN. Very good.

Mr. OVERBAY. Mr. Brown, the situation is a little bit different with the facilities program. The Congress has tended to fund it at least equal to or slightly above the President's budget, but generally very little above that. And I would guess primarily because unlike most of the rest of the national forest system programs, this particular program has not got any advocates that are out there testifying in support of it.

It is really an agency need. And, like a lot of capital investments, I think we all put those off when we get into difficult funding situations and setting priorities as to whether you deal with really difficult issue facing us today in the national forests or whether you replace buildings, and you deal with the issues. So these have been given lower priority.

Mr. BROWN. Have you made an effort to calculate the shortfall or some reasonable approximation of the shortfall in terms of funding of facilities, as far as what you might say your reasonably urgent needs compared with what the funding you have to meet those needs?

I have a general sense. And it is not based on any look at Forest Service facilities, but at general agriculture research facilities, that there is a large backlog of need developing there. For example, Beltsville, which was the subject of some scrutiny by the press a year or so ago, which has resulted in some improvement, as I understand it, in funding. But they were really in a very bad position with regard to the maintenance of the facility at Beltsville.

I would like to have some feel for just how serious this problem is within the Forest Service, even an approximation.

Mr. OVERBAY. Maybe I will start out by answering that and maybe in terms of the total program. And if Dr. Sesco has specific numbers, perhaps he could respond to that.

But I think overall generally, the chart that I showed you on the backlog indicates that currently, according to our RPA program, we have about $270 million backlog of needs.

Mr. BROWN. $250 million?

Mr. OVERBAY. Well, it has grown $270 million now.

Mr. BROWN. And you are being funded currently at a level somewhere around $10 million a year, is that right?

Mr. OVERBAY. Well, that is what the last appropriation was. Now, it is our estimate that we need approximately $15 million a year to take care of the current needs, the problems that crop up with unsafe drinking water——

Mr. BROWN. Without addressing the backlog?

Mr. OVERBAY. Without addressing backlog, or where we lose facilities, like we did on the Wenatchee National Forest where we

lost a warehouse by fire. We have those kind of current needs that occur. So that averages about $15 million.

To take care of the backlog, it would be our estimate, to do that over a 10-year period of time, about $27 million a year in addition to take care of that.

Mr. VOLKMER. Would the gentleman yield?

Mr. BROWN. My time has expired. I will come back a little later.

Mr. VOLKMER. Right.

I wanted to cover one area on this facility though, that does concern me a little bit. And maybe it will explain why we cannot have it broken out.

At the bottom of the sheet that we have here showing the amounts, it includes recreation use construction, amounts specifically identified for research and FA&O are not available for all those categories.

Can you explain to me why we cannot break it out or at least take out the recreation, facilities for recreation?

Mr. OVERBAY. Yes. That is only true, as I understand it, the recreation and research construction work——

Mr. VOLKMER. Only in 1983?

Mr. OVERBAY. Only in 1983. For some reason, we were not able to get that information split out. The rest of those figures do not include the recreation.

Mr. VOLKMER. Right.

The gentleman from Washington.

Mr. MORRISON. I guess, gentlemen, I have to tell you that I am very concerned about what I see, particularly in the facilities area, it looks like you have got support in your own agency, but in the case of facilities you have been cut off at OMB. And Congress has not for a variety of reasons added to the President's budget as dramatically as they have in the research area.

I was just wondering, as you look down the road at these 40-year old facilities—and some of this carries over into the recreational area where I know you are still using a lot of those facilities constructed by the CCC, that dates them—is there a master plan to make up for this loss, investment?

Mr. OVERBAY. Well, Congressman, we will continue to ask for what we feel is a reasonable program. Again, what has happened is that within the limited money available, they have set some priorities and these capital investments have been set aside. But the backlog continues to grow and the facilities continue to grow older, and it becomes more difficult as time goes on to continue to maintain those.

Also, of course, the cost of replacement grows at the same time. But we will continue to ask for what our needs are.

Mr. MORRISON. Maybe, Mr. Chairman, we have to help in this effort. I see this hole getting deeper and deeper and more expensive to get out of. And I know there is a shortage of funds, but I think this is reaching the point of the ridiculous. Perhaps since you are sort of locked in downtown that maybe we ought to hold some hearings in this area and try to point out to other Members of Congress that this has to increasingly become a priority. Although as our good friend and colleague, Mr. Brown, has pointed out, we have

to depend on the appropriators to actually come up with those dollars.

But you are aware, of course, as we are, of the gyrations Members of Congress do to get new Forest Service facilities in our districts, like planned exchanges and some things that we have all gotten in trouble for. So we are aware of the pressure that is on you.

Just one question, Dr. Sesco, for you. The mechanisms you have in place to determine your priorities for research funding, are they responsive enough to this dramatically changing environment in which we are all working? You have indicated significant changes, but are they fast enough? Are they anticipating enough problems like we now face in the Northwest of the spotted owl?

Mr. SESCO. I believe so, Mr. Morrison. I believe the key characteristic of a good science program is that our scientists have to be addressing problems that have not yet been fully articulated by the general public. That means we have got to be ahead of our time. And we have not always been in that position.

But I think with our planning process that we have now and the input that we have from our user groups, that we are able to respond. I think that is indicated by our priority research program, where we have been able to shift money actually out of our base program into some of these higher priority areas, such as spotted owl and global climate and the forest fire situation.

Mr. MORRISON. Related to the spotted owl issue, Mr. Smith and I might ask this question, is the forest—are the U.S. Fish and Wildlife Service going to accept Forest Service research on issues like the spotted owl?

Mr. ROSS. At this point the Forest Service and Fish and Wildlife Service scientists are working together to develop management guidelines for the future. Obviously there is a lot of discussion right now about the state of science and the technology available to deal with the spotted owl, but at this point there has been, at least at the scientist level, exchange of information. I believe some progress will be made in developing management guidelines.

Mr. MORRISON. I ask that question because it is absolutely vital to us that the investment we are making in this work be acceptable as we wind on through other agencies' jurisdictions, and perhaps even ultimately the court's decisions.

Thank you.

Mr. BROWN. Would the gentleman yield?

Mr. MORRISON. I would be glad to yield to my friend from California.

Mr. BROWN. The spotted owl is a particularly troubling problem right now, as we recognize. But it is only a case study of procedures to be used in dealing with all endangered species problems.

In my own area, we have the Stevens kangaroo rat. Its habitat is on BLM land, not Forest Service land, and on private land. The problem is the same, identifying the extent of the species, trying to get some reasonable inventory, which we do not have, identifying in a scientific way, what the ecological needs of the species are in terms of extent and type of habitat, and other related kinds of issues.

Now, what we need is a comprehensive approach to this as an ecological problem in which we seek to identify within the Forest Service jurisdiction, for example, what is the inventory of endanger species, what are the nature of those species and their needs in terms of habitat, is there the possibility of solving the problem through relocation or modifications of some sort.

I have a sense that the research base, not just for the spotted owl, but probably for a large number of endanger species, is inadequate. We found that in connection with endanger flora and fauna in the Midwest where EPA was going to move in and prohibit the use of chemicals because of its impact upon endangered species. And we found that there was not a suitable scientific base for determining the actual extent of the endangered species, the nature, whether or not they really were threatened by the chemical use, and so on.

And we have had to start over in trying to build that base out there. But we recognize the excellence of the scientific resources in the Forest Service. And we would hope that in cooperation with other relevant agencies we could begin to attack this problem on a broad basis and not just on an endangered species of the month kind of an approach to it, which is the way we seem to going at it at this time.

Thank you.

Mr. SESCO. Mr. Brown, may I respond to that?

Mr. BROWN. Yes.

Mr. SESCO. You make a very good point. We have a priority research program that deals with threatened and endangered plant and animal species, funded currently at about $3.7 million. But when you consider the fact that there are about 531 species of plants and animals that are currently listed as threatened and endangered and the fact that 166 plant species of this 531 actually occur on National Forest System land, you can get some idea of the magnitude of what the impending problem perhaps could be.

Mr. BROWN. Well, we certainly appreciate the magnitude of the problem an the resource limitations that you have in dealing with it. But until we get that information out the Congress and to the public, it is not going to redressed in an effective way.

Mr. MORRISON. Thank you, Mr. Chairman.

Mr. VOLKMER. All right.

The Chair now recognizes the gentleman from Indiana.

Mr. JONTZ. Thank you, Mr. Chairman.

Mr. Sesco, I have a question for you I believe. I see under the identification of the priority research areas for fiscal 1988 there is listed international trade in timber and wood products, and then it is not on the list for the next fiscal year, but there is expanding economic opportunities through new wood products.

My question is this: I am under the impression that we are having some trouble selling finished products in some Pacific Rim markets. And I wonder whether it is because we are not tooled right in some of our mills to supply the product that is in demand in Japan.

And can you tell me whether that is an issue that would be within the realm of your interests? And if so, what may have been done in terms of research? Maybe market research of that sort is

not what you do, but I am of the impression that for lack of perhaps information here in the states we are not competing effectively in the area of some value-added products that could keep some jobs in the Pacific Northwest in particular.

Mr. SESCO. Congressman Jontz, you are correct that the international trade aspect of our research program is not as visible in our 1989 or 1990 budget as it was in our 1988 priority research program. There has been some change in emphasis. However, I would like to point out that under the new initiative, enhancing economic opportunities through new wood products, there is still a foreign trade component. We are trying to help the forest products industry become more competitive internationally.

As you are probably aware, we have gone from being a net exporter to a net importer in forest products. I am not prepared to specifically outline the studies that we are doing, but we are doing some research in that area. I can provide that for the record if you like.

[The information follows:]

United States Department of Agriculture | Forest Service | Washington Office | 12th & Independence SW
P.O. Box 96090
Washington, DC 20090-6090

Reply To: 4800

Date: October 11, 1989

Honorable Harold L. Volkmer
Chairman, Subcommittee on Forests,
Family Farms, and Energy
Committee on Agriculture
United States House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

As you requested at the September 20 oversight hearings on Forest Service Research, we are providing the following information on our international trade research program. An identical letter has been sent to Congressman Jontz in response to his question at the hearing of September 20.

We have ongoing research targeted at international trade in eastern softwoods, eastern hardwoods, and especially western softwoods. The research work units involved are located at New Orleans, Louisiana; Princeton, West Virginia; Madison, Wisconsin; and Portland, Oregon.

Our research on international trade is planned within the following context:

1. The United States is both a major exporter and importer of timber products.

2. The patterns of this trade are both complex and evolving as world shipments of forest products have increased substantially over the past several decades.

If the United States export share of this trade is to increase, research must continue to identify trends, constraints, and opportunities to increase our wood products exports. At the same time, we must maintain an understanding of how trade affects our domestic demand/supply outlook. Research findings on U.S. international trade in timber and wood products are being used by public and private forestry and wood industry planners. This research is also serving as a major source of information for resolution of many major timber and wood product trade issues. The Foreign Agricultural Service has responsibility for market promotion programs and our research is coordinated with their activities.

Research at New Orleans tracks trends in exports to identify market opportunities and factors affecting markets. Findings show that southern exports of wood products surged for the third consecutive year in 1988. Foreign sales totaled $804 million, up more than 50 percent from the

previous record in 1987. Southern pine lumber exports achieved levels not recorded since the 1930's. While a weak dollar has been a key factor making southern wood products more competitive overseas, strong research and market development efforts in recent years have helped to inform and educate potential exporters about opportunities in foreign markets.

Research at Princeton, West Virginia, concentrates on the eastern hardwood resource. The research monitors trends in hardwood trade and identifies factors affecting key markets. Exchange rates, furniture styles, and even international concerns over tropical deforestation affect prospects for exports of U.S. temperate hardwoods. The value of hardwood exports more than doubled between 1985 and 1988 to $1 billion, with lumber accounting for two-thirds of the value in 1988 and logs, one-third. Growth markets for hardwood lumber have been Japan, the United Kingdom, and Italy. Europe is the biggest market for exports of logs.

Research at Madison, Wisconsin, provides projections of long-term production, consumption and trade in pulp and paper markets. This research also is intended to identify the implications of paper recycling on the demand for pulpwood.

Also at Madison, we have an international forest products RD&A program. One intent of this program is to bring visitors from foreign countries to the United States for an extended stay so that we can exchange knowledge about technologies and other aspects of wood utilization. The program also aims to improve our understanding of wood use in other countries to the point where we can evaluate the suitability of foreign technologies for U.S. needs.

Many of our world experts on the engineering and use of wood are located at Madison. As needed, they are made available to resolve trade and other issues. For example, our scientists are working with their Canadian counterparts and the plywood industries of the two countries to resolve issues surrounding the use of CD grade plywood in Canada.

Research at Portland, Oregon, is targeted at the general effects of trade on the U.S. demand/supply situation and trade with Pacific Rim countries in particular.

Softwood log exports have been an issue in this part of the country for more than 20 years. Research personnel at Portland have been a source of knowledge for people to use in understanding the issue and alternative export policies. Now that the Peoples' Republic of China is in the market, exports from Washington and Oregon exceeded 3.6 billion board feet for the first time in 1988.

Research personnel headquartered in Portland have developed a series of econometric models that help us to understand the dynamics of timber supply and demand in this country and the effects of trade on our domestic supply/demand situation.

The mix of log vs. lumber exports has changed over time and in the last several years, the proportion of lumber exports has been increasing. The volume of softwood lumber exports as a percent of the total volume of softwood logs and lumber for Washington and Oregon increased from 14 percent in 1985 to 17 percent in 1986, 20 percent in 1987 and 21 percent in 1988. The volume of softwood lumber exports doubled during this period. Much of the growth in export volume was to Japan which accounted for 57 percent of the softwood lumber exports from the two States in 1988.

A strong housing market in Japan and the low value of the dollar relative to the yen contributed to the increase in both log and lumber exports. The market in the Peoples' Republic of China is uncertain in the foreseeable future.

Grades and standards and product specifications vary around the Pacific Rim markets. Japan has a tradition of wood-based housing and wood is used extensively in single-family housing. The specifications for lumber used in a traditional Japanese house have been known for a long time and a small number of U.S. mills have successfully met them. Other characteristics of the Japanese market, especially the distribution system and the language barrier have been overwhelming to some domestic mill operators. The Republic of Korea and especially the Peoples' Republic of China do not have a tradition of wood-based housing. Imported logs are processed into door and window frames and other speciality products where U.S. mills would have problems being competitive.

Research on markets and product specifications are made available to domestic manufacturers. We do not have research programs to help domestic manufacturers tool up to meet foreign specifications. The success of some U.S. firms in the export market demonstrates that the appropriate technology is available. The Foreign Agricultural Service, some States and some other Federal programs have the intent of helping domestic manufacturers get started in the export market. We do not know of any assistance programs that specifically have the purpose of helping U.S. firms to meet foreign specifications for timber products.

Sincerely,

Jerry A. Sesso

F. DALE ROBERTSON
Chief

Mr. JONTZ. Well, I would appreciate that. It would seem to me that this would be an appropriate function for someone within the Forest Service to be undertaking. And I guess it is a research project. I am troubled that we do not have the information that we need, or perhaps we have it and are not responding to it. But for whatever reasons, we are not producing products where we might be able to compete for overseas markets and that that is losing us jobs stateside, which we very much need.

I think that is the only question I have for right now, Mr. Chairman. I yield the balance of my time.

Mr. VOLKMER. The gentleman from Oregon.

Mr. SMITH. Thank you, Mr. Chairman.

My friend from Indiana raises a good point. However, the market has changed, and the Japanese are buying a large amount of lumber specifically, in some cases up to 20 percent of production. So the market has reflected the demand and does prove that we can and are selling quite a lot of it.

Mr. JONTZ. If the gentleman would yield, I appreciate that. I guess I was under the impression still that there a number of mills which were not able to produce products or were not producing products because of various requirements that the Japanese buyers have that——

Mr. SMITH. They are preferences for logs.

Mr. JONTZ. I understand that. I appreciate that. But I think we ought to be able to compete in the finished products area where we can keep jobs here.

Mr. SMITH. Right, so do I.

Mr. Sesco, recognizing the importance of the research on the spotted owl, why is the funding for the spotted owl going down rather than going up in priorities?

Mr. SESCO. If you are referring to our President's budget for 1990, there was a glitch in there. We did show a reduction. But that reduction in fact is not going to take place.

Mr. SMITH. That $250,000 has been restored——

Mr. SESCO. Yes.

Mr. SMITH. You are saying, that will be restored?

Mr. SESCO. I believe I am correct in saying that has been restored, yes.

Mr. SMITH. Thank you.

How long will it take the Forest Service under current funding to make a scientific determination of the spotted owl?

Mr. SESCO. That is a difficult question to answer, because we are dealing with a species that is very difficult to understand. But we hope that during this 5-year period which we have under the record of decision to look at the habitat requirements and what will be necessary to maintain a viable population, that we will be able to provide some evidence that will help us in better management of the spotted owl. But it is a very difficult question to answer. I cannot say how long it will take us.

Mr. SMITH. It will take at least 5 years?

Mr. SESCO. At least.

Mr. SMITH. And Congressman Brown was interested in that, and I agree with him. You are going to be forced to make decisions here shortly on questions of the allowable cut versus the question of en-

dangered species when we do not have the information available to make a judgment and decision. That is going to be very difficult for this Congress which is going to be faced with question directly.

Mr. SESCO. I agree with you.

Mr. SMITH. You have done a great job on the start, and I want to compliment you on that. That is an ongoing and very important piece of research that we congratulate you for in the Northwest and look forward to results.

Mr. SESCO. Thank you.

Mr. SMITH. Mr. Overbay, let me ask you a softball question. You have sufficient funds in your budget as of now to resurrect in effect what has been a diminishing local citizen input into the assistance of fire fighting, training local citizens, contracting with local mill owners for assistance, not only equipment, but in training augers and workers to assist the Forest Service fighting fires.

Mr. OVERBAY. Yes, we do have sufficient funds to do that. In fact, that is our policy. And the chief has reiterated that within the last year, that where possible we will make use of local folks in helping us in those fire suppression efforts.

Mr. SMITH. I appreciate that. But the Chairman knows—I am most interested and I know he is—that effort, we are going to be discussing that in the future.

We have several exchanges proposed, particularly in the Northwest, of allowing Union County. Should we proceed with those kinds of arrangements? And how are those exchanges, in your opinion, going along?

Mr. OVERBAY. Now, are you talking land for land exchange——

Mr. SMITH. Right, land for land.

Mr. OVERBAY. Because we have also had some proposals that involved exchanges that would require administrative facilities, and this committee has had some real concerns about that.

Mr. SMITH. Right.

Mr. OVERBAY. On the land for land exchanges, my response is yes, they should go forward. In most cases, that provides for consolidation of lands not only within the national forests, but lots of times it also benefits the private land owner, it reduces our administrative cost, property boundaries, road easement problems, et cetera. So in general, I would say yes, we should go forward with those.

Mr. SMITH. Just a technical question, does your method of contracting out to build buildings show up in your appropriation request for buildings, or is that another method of accounting? In other words, you contract in some cases for people to build your buildings and then you lease them back?

Mr. OVERBAY. Generally we will do that through GSA. And GSA will handle the contract and we just pay the least cost.

Mr. SMITH. Right. That does not show up in this budget?

Mr. OVERBAY. In some areas we have gone ahead and done that also. But that is part of the lease cost, and it is not part of the FAO construction.

Mr. SMITH. It is obvious you cannot build buildings with appropriations, do it that way. And you pay a lease hold. So that ought to help you in meeting your building requirements. And I did not see that.

Mr. OVERBAY. OK. I did testify about what the costs of leasing were on the average per year. That is in my statement. Obviously that is another way to acquire facilities. It is something that we have available that we can do immediately. It is not generally—in some cases anyhow as cost effective.

Mr. SMITH. My time is up.

Mr. VOLKMER. Thank you.

Mr. Overbay, the figure of 250 million that you show all the way across there for needed facilities, is that a one-time, in other words, is that the total amount that is needed to construct all of our fire, research, administrative facilities?

Mr. OVERBAY. That is the information that we have identified as we built the RPA program from the ground up. And that would be current needs, and replacement, or improvement.

Mr. VOLKMER. I mean, that is not an annual need? That is a total?

Mr. OVERBAY. Not an annual. That is a total need.

Mr. VOLKMER. Right.

Mr. OVERBAY. And, you know, over a period of time if we appropriate funds, we would cut down on that need, that would diminish.

Mr. VOLKMER. Right.

So we do have a backlog of needed construction and maintenance projects then?

Mr. OVERBAY. Yes.

Mr. VOLKMER. And how extensive is this backlog in terms of numbers of projects? We know the dollars, we have $250 million. About how many projects total would you have there? Or would it be easier, do you have a list of those projects?

Mr. OVERBAY. I guess we could furnish the list of that, the total projects. I do not have that with me. It would be a very long list.

Mr. VOLKMER. I would like to have that.

Mr. OVERBAY. Generally what we do deal with each year is our very top priority projects.

Mr. VOLKMER. I understand that. And you cannot even meet all those top priority projects——

Mr. OVERBAY. That is correct.

Mr. VOLKMER. With the funds that have been made available to you, you cannot meet them, I understand that. Because I have been talking to you about one myself. And I understand the problem.

I would like to have that list.

[The information follows:]

FACILITY CONSTRUCTION NEEDS

USDA - FOREST SERVICE

November 1989

Requested by

U.S. House Agriculture Subcommittee on Forests, Family Farms, and Energy

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EXECUTIVE SUMMARY

This is a report of the estimated backlog for the USDA Forest Service facilities construction program. Facilities considered in this assessment include buildings, and the related utilities and site improvements, needed to support the administration of the National Forests and to support the Forest Service Research programs.

Backlog is current unmet needs. The current backlog, as reported by field units, is:

National Forest System (NFS)		$268.0 million
Research (RES)		70.0 million
High Cost Leases Needing Replacement		110.0 million
	Total	$448.0 million

The field units were also asked to project facility needs to improve operating efficiencies through the year 2001. The anticipated investments needed, in addition to the backlog, over the next decade are $465 million for NFS and $87 million for RES.

The report also contains a description of the data collection process used, examples of specific facility needs and appendix material outlining the Forest Service facilities planning and management process. Finally, a total project listing is included responding to the Committee's request for facility type, location and cost.

This report does not address public recreation facilities or recreation program construction needs.

I. REPORT REQUEST

On September 20, 1989, James C. Overbay, Deputy Chief, National Forest System, provided testimony on the Forest Service Facilities program to the House Agriculture Subcommittee on Forests, Family Farms and Energy. His testimony at the Hearing noted that there is a large construction backlog for the National Forest System support facilities and for Research facilities. There was no discussion of recreation construction needs.

Chairman Volkmer requested that the Forest Service provide a detailed list of the backlog of needs, addressing the facility type, location and cost.

This backlog of construction needs is the subject of this report.

II. REPORT OF BACKLOG

Backlog is defined as all facilities that were not provided, replaced, renovated, or improved at the time of need, but should have been. Need is frequently identified because a facility does not meet current health and safety requirements, legal requirements, or is no longer cost effective. For purposes of this report, backlog is the accumulation of unfulfilled needs through 1990.

Annual appropriations of the past 9 years have averaged $11.5 million for NFS facilities construction and $1.4 million for RES facilities construction. See table below:

Year	NFS (million $)	RES (million $)
1990	6.727	4.408
1989	8.321	1.550
1988	6.745	2.908
1987	8.646	0.343
1986	15.316	0.642
1985	14.417	1.634
1984	14.845	0.422
1983	16.207	0.454
1982	12.394	0.388
Average	11.513	1.417

(One should note that the NFS funding has fallen far short of the 9 year average in the past 4 years.)

In addition to the current backlog, over the next decade there will be an accrual of further needs not liquidated by annual investment appropriations. This will, in effect, increase the backlog by the year 2001.

A. Previous Backlog Estimates

Prior to this collection of needs requested by the Committee, facility construction backlogs were estimated from several in-service assessments and reports. Since backlog, per se, is not routinely reported, the reliability of the estimates were suspect, and could only be used as a general estimate. This was the case with the data that was presented at the Hearing.

B. Present Backlog Estimate

With the assimilation of field data collected for this report, a reliable estimate of backlog can be made. Total backlog for NFS and RES is $268 million and $70 million respectively.

We are also including, in our current backlog, high cost leases that should be replaced by government-owned facilities. The costs for these replacements are $105 million for NFS and $5 million for RES.

The field units were also requested to supply their best estimates of facility needs through the year 2001. In addition to the backlog shown above, needs over the next decade are $465 million for NFS and $87 million for RES.

Though there is an annual NFS facilities maintenance appropriation used for upkeep of existing facilities, there is no companion appropriation for RES facilities. Research maintenance is funded primarily from program fund assessments, though some larger projects have been done through the Construction Appropriation.

III. CONSTRUCTION NEEDS

This data represents a concerted, comprehensive response to an opportunity to provide a picture of the shortfall in the facilities construction program. Projects included in the data base are valid needs.

Field managers were instructed to identify the current backlog and the additional needs over the next ten years that have not been funded in programs through 1990. Projects included in the data base were obtained from short term schedules and from the unit Facility Master Plans. Cost estimates can be assumed accurate within plus or minus ten percent and are in 1990 dollars.

A brief discussion of the Forest Service Facilities Management Approach is included as Appendix material.

To help the reader better identify with the implications of these facility needs, several actual cases are summarized below:

Forestry Sciences Laboratory (NC) – University of Missouri - Columbia. The proposed cooperative project with the University, will provide the Forest Service greatly expanded research capacity. Funding of the project will allow the University funds to effect completion of a major new building for the School of Forestry, Fisheries and Wildlife. Funding will ensure the Forest Service space for it's program in the School owned and managed building. The proximity of the School, the faculty, and Forest Service scientists provides a cost-effective complement to both programs.

Supervisors Office Building - Routt NF (R-2) Steamboat Springs, CO. The Supervisor and his principal staff have been leasing the same office for over 18 years. Growth over the years has created considerable overcrowding. In addition, several staff persons are provided overflow space in other rental facilities around the city. The resort atmosphere of Steamboat Springs has escalated leasing costs considerably. There are no potential facilities for lease that will hold the entire staff. Studies have verified that government ownership of an office would be the most cost-effective solution.

Colocated Snow Mtn. (Ochoco NF) and Burns (Malheur NF) Ranger District Office, (R-6) Hines, OR. This office currently has 120 employees working out of 6 structures (1 office, 2 residences-converted-to-offices, 2 warehouses-converted-to-offices, and 1 trailer). These spaces are overcrowded. Recent wellness testing has revealed very high employee stress levels caused by overcrowding, lack of space for central map/files systems, conferences, and work environments conducive to mental concentration.

Forestry Sciences Laboratory (NE), Delaware, OH. The commercial power grid is insufficient to insure consistent service to the lab. Thousands of dollars have been spent repairing damaged electrical equipment. An auxilary generator or poser supply is needed to maintain power quality for research activities at the lab.

Brush Creek Ranger District Office, Medicine Bow NF (R-2), Saratoga, WY. The current office is a 1930's vintage building. Some staff are located in an adjacent trailer. Some of the staff are located in the basement with only one exit stair and small windows. The furnace is located next to the stairway. Radon tests results are 4.7 pi/L, requiring mitigation. A replacement office would eliminate these health and safety risks.

Chetco Ranger District, Siskiyou NF, (R-6), Brookings, OR. Employees have resorted to sleeping in their cars due to the lack of adequate or affordable crew quarters available.

Paulina Ranger District, Ochoco NF, (R-6), Rager, OR. A minority couple who had previously accepted a position, turned down the job offer when they saw the only housing that was available to them. They described the quarters as ..."a return to the ghettos".

Craig Ranger District Office and Housing, Tongass NF, (R-10), Craig, AK. The Craig Ranger District headquarters is currently located in a small converted duplex which was built in the 1950's. Office working conditions are cramped for the 24 permanent employees. Working areas are further reduced when seasonal and temporary employees, detailers and volunteers are present. Over 200 persons have had to work out of this office on occasion. All employees share one restroom. The electrical circuits for the building are overloaded, and the computer system is located in the attached garage. Parking is very limited, and there are no visitor facilities. There is a critical shortage of housing for both permanent and temporary employees. The Ranger had to live in a church attic apartment for several months until a house came on the market that he could buy. Most of the floor structure under the bunkhouse is rotting, and we have buildings built as early as the 1930's which are in violation of existing codes. All government quarters in Craig are beyond their useful life.

Hoonah Ranger District Housing, Tongass NF, (R-10), Hoonah, AK. Housing and trailer park construction badly needed. In Hoonah, a small family and two single persons, all employees, have had to share one 3-bedroom duplex most of the summer because of the housing situation there. There are no houses for sale or rent in Hoonah.

Minor construction projects (i.e., those costing under $100,000) are included in the data base. Though numerous minor projects are accomplished each year using project funds, they normally should be funded in the Construction Appropriation.

Research facility data includes a considerable number of heavy maintenance projects. Currently there is no research maintenance appropriation. This information provides an estimate of need.

The project list is not a budget request, nor does it display national priorities. It represents the total needs as identified by each unit.

As currently staffed, using contracting support, the Forest Service could handle about a $30-40 million annual program.

IV. SUMMARY DATA ANALYSIS

The following charts display the current facilities backlog data as indicated below:

Chart 1 — Current Facilities Backlog

This chart displays the current backlog for both the National Forest System and Research construction programs.

Chart 2 — Principle Use For Needed Research Facilities

Chart 3 — Principle Use For Needed NFS Facilities

Charts 2 and 3 are similar. They show the principle use to which the RES and the NFS facility investments will be put, and the aggregate costs for each use. The data base is the backlog list. High cost lease replacements are included.

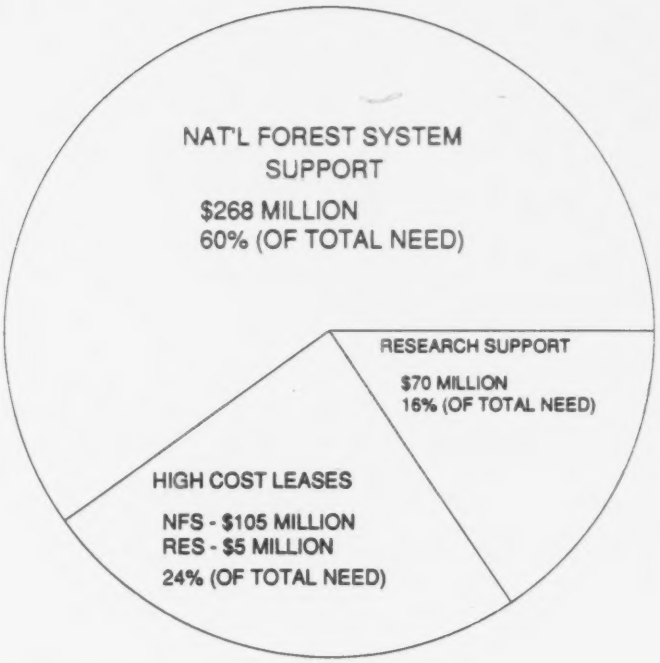
Chart 4 — Principle Reasons For Research Facility Needs

Chart 5 — Principle Reasons For NFS Facility Needs

Charts 4 and 5 are similar. They display the Research and NFS construction programs differentiated by the reasons that the project is needed. The data base is the backlog list. High cost lease replacements are included.

Ten types of work are displayed to provide a summary of total cost of projects by principal reason for project. This illustrates the primary reasons for the projects. In reality, each project may have two to five benefits that are obtained through project execution.

CURRENT FACILITIES BACKLOG

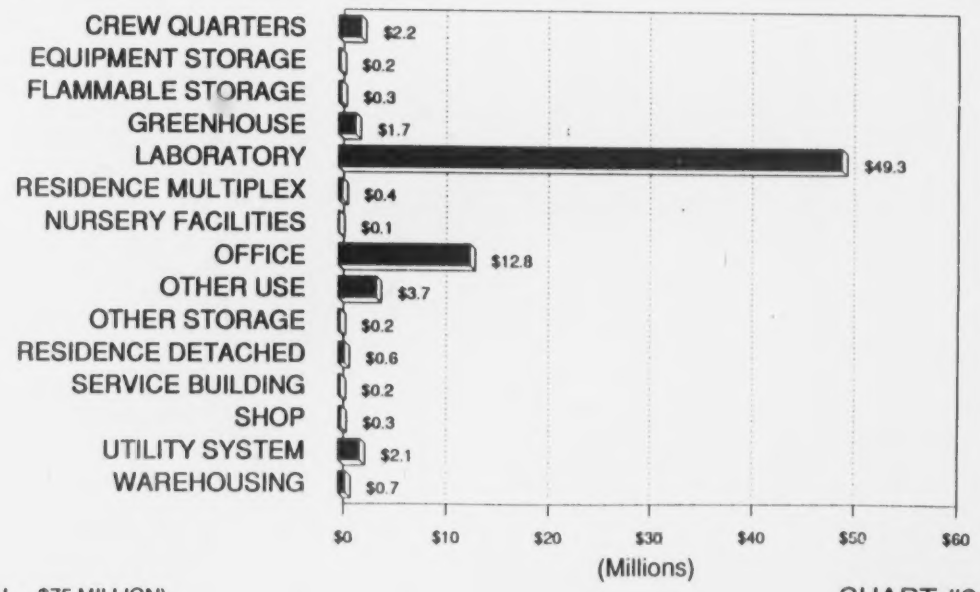


TOTAL NEEDS $448 MILLION

CHART #1

28-394 0 - 90 - 3

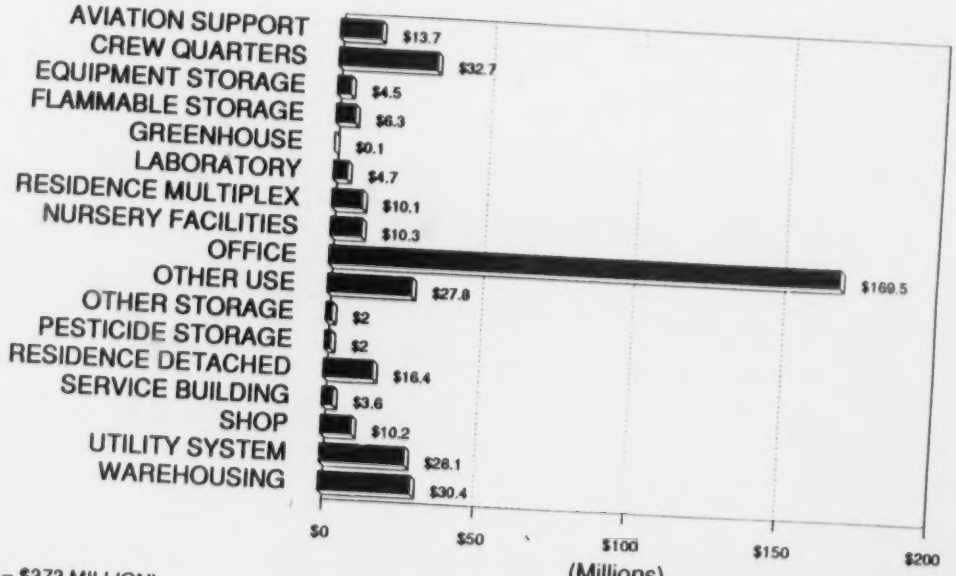
PRINCIPAL USE FOR NEEDED RESEARCH FACILITIES



(TOTAL = $75 MILLION)

CHART #2

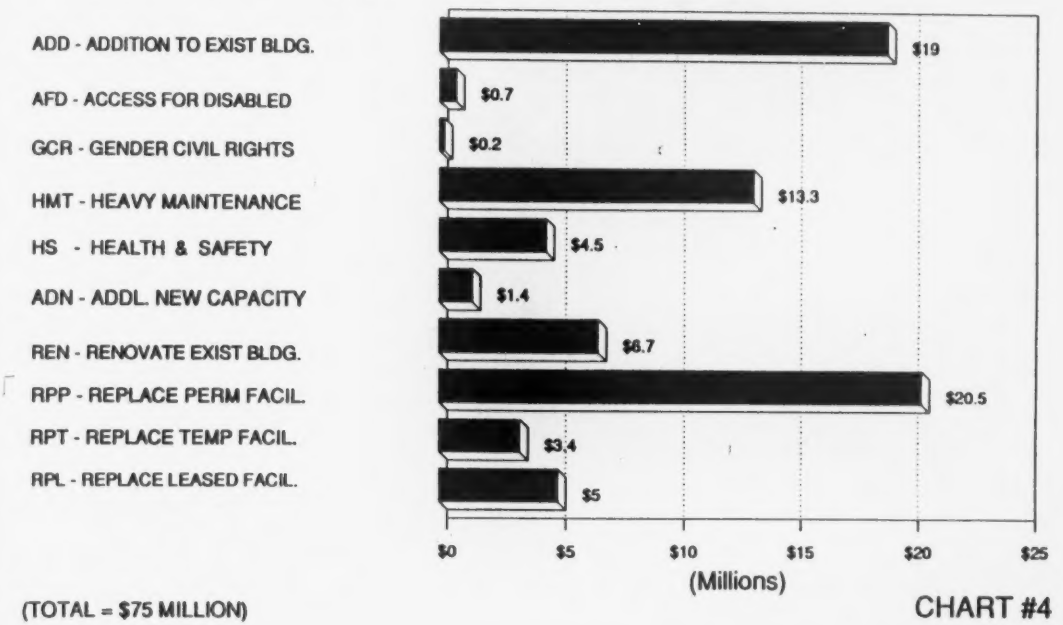
PRINCIPAL USE FOR NEEDED NFS FACILITIES



(TOTAL = $373 MILLION)

CHART #3

PRINCIPAL REASONS FOR RESEARCH FACILITY NEEDS



(TOTAL = $75 MILLION)

CHART #4

PRINCIPAL REASONS FOR NFS FACILITY NEEDS

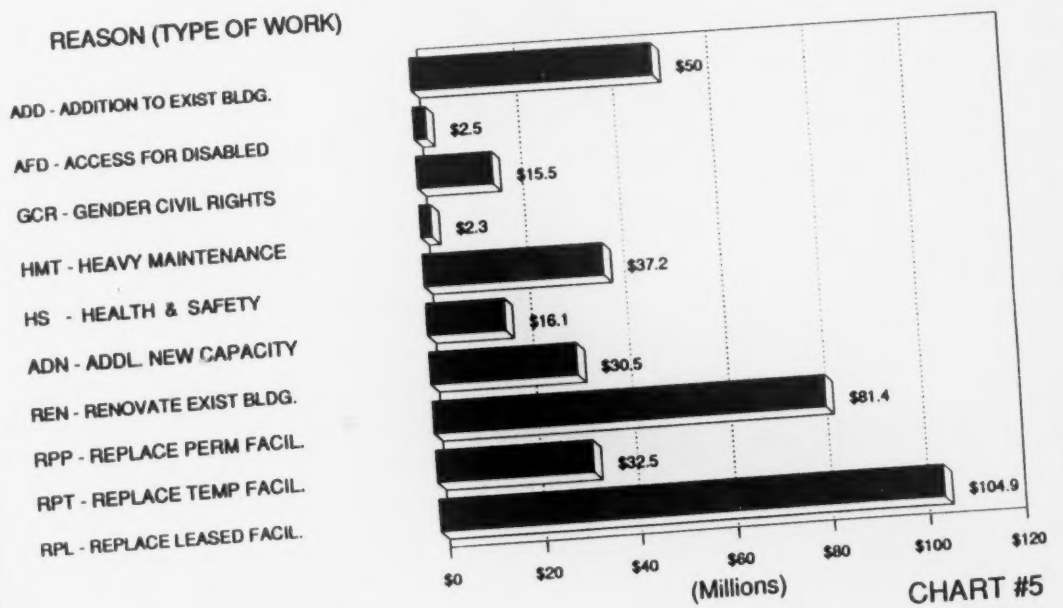


CHART #5

(TOTAL = $373 MILLION)

APPENDIX A

Forest Service Facilities Management Approach

Background

Facilities management is of great importance in all large agencies requiring buildings and similar facilities for mission support. The benefits of a facility can only be realized, however, if the facility is operated effectively.

Facility managers recognize that the overall physical plant of an institution, company, or agency requires replacement, renovation, maintenance, and/or upgrading on a continuing basis. Facility requirements evolve over time due to changes in staffing and work methods and increased demands for public service. The success of an agency is measured by its ability to respond to changes, and the agency's ability is affected by its facilities.

Forest Service facilities provide resource program support and public service by providing work and meeting space, storage and repair areas, and employee housing, where necessary. Benefits of adequate facilities include:

- Quality of work-life (Affects productivity, recruitment, and overall employee well-being)
- Safe and healthy environment for employees and the public
- Effective use of space
- Service to the public
- Minimized costs for field work and travel
- Ease of maintenance
- Aesthetically pleasing appearance

Management Considerations

The dominant factor considered by the Forest Service in managing facilities is the cost-effectiveness of the site, individual buildings, and subsystems within the buildings.

Cost-effectiveness is not necessarily the lowest facility cost or is it always the lowest life-cycle building or system cost. (Life-cycle cost has relatively limited influence in project analysis. Although considered in all analyses, it has been the dominant selection criteria in only 20 percent of the Preliminary Project Analysis studies done in the past three years.)

The principal reason for a facility is to provide benefits to the user. Cost-effectiveness is measured in terms of benefits received for the dollar invested. The ideal solution provides the best return on investment for the benefits received.

Another key factor considered inmanaging facilities is obsolescence. There are few news for entirely new Forest Service facilities. Facility needs often arise due to obsolescence. Replacement construction, additions, and renovations of existing facilities are needed in most cases, rather than new, initial construction. However, replacements require construction using new materials and result in a "new" facility.

There are two types of obsolescence that occur in facilities—structural and functional.

Structural obsolescence occurs when major building components wear out or deteriorate to the extent that they are no longer serviceable or are hazardous. Many Forest Service facilities are of "stick-built", light frame construction. Structural obsolescence of major components (windows, doors, framing, siding, electrical and plumbing systems, etc.) often occurs in 50 to 70 years. Over 40 percent of the 16,000 Forest Service-owned facilities were constructed before 1940. While age is not, of itself, a reason for replacing a facility, it is an indicator of probable obsolescence.

Functional obsolescence occurs when the uses change to the extent that the facility cannot provide an adequate level of service. Functional obsolescence results from changes in staffing (numbers and types of personnel); work (type, methods, technology, and equipment); needs for public service; and expectations for appearance of facilities. Functional obsolescence typically occurs more frequently than structural obsolescence, often 5 to 10 years after occupancy. Functional obsolescence is the underlying justification for almost all renovation and replacement construction projects. While adjustments can be made to reuse some facilities, there are situations when several gradually occurring factors combine to necessitate complete replacement in order to regain cost-effective use of a facility or site.

Planning and Analysis

A three-tiered, facilities planning process provides a balanced investment level and cost-effective facilities.

Master Planning is a determination of facilities required to implement Forest Land Management Plans and Research Management Plans. Facility Master Plans are done on a Forest-wide or Research Station-wide basis and are the strategic plan for facilities management. Facilities Master Planning includes review and consideration of planning documents, staffing levels and skill deployment patterns, work activities, and alternate facilities locations. The site of all facilities, the probable disposition of existing facilities (retain or eliminate), potential reuse of historic and other existing facilities and/or the need for additional facilities for cost-effective Forest Service management is determined. Analysis is mostly intuitive except in instances where more formal analytical analysis is needed. Technology and staffing requirements, unit consolidations, and other factors often require re-examination of Master Plans to ensure their viability.

Preliminary Project Analysis (PPA) determines the best course of action to be taken for facility location or acquisition. The PPA is required prior to all significant facilities investment decisions; i.e. requesting program funds, advertising for leased space, developing exchange proposals, etc.. Candidate projects are selected based on need from those listed on the Master Plan. However, a project is evaluated considering the probability of actual execution and the alternatives available at the time of analysis.

Generally, facility alternatives are not equal and trade-off analysis is required. The PPA trade-off analysis provides for simultaneous analysis of viable alternative space/facility acquisition options (construction, lease, exchange, purchase and alternative locations) against prescribed criteria (customer service, employee health and safety, management initiatives, productivity, life-cycle costs, etc.). Multi-attribute decision theory analysis techniques are used to measure the capability and anticipated performance of each alternative against project criteria.

Project Design is the first step in the project development process. It is an extension of the selection of the recommended alternative from the PPA. Most often, project design involves detailed architectural and engineering design for a Forest Service-owned facility. Occasionally, project design provides the criteria and specifications for a proposed lease. Several steps and reviews are employed to ensure that the project will meet project requirements and and be cost-effective.

The timing of specific project planning is important. As the last two steps determine funding needs and a project implementation schedule, they are usually completed immediately prior to programming actions and facility development, respectively. Two to three years may elapse from the start of the PPA process to occupancy of a facility. Therfore, sequential ordering and prioritization of projects within the unit are important to ensure efficient planning and execution.

Finally, the program development process provides a further check on cost-effectiveness of needed facilities. Within the Forest Service, capital investments compete with other needs and targets. Local forest managers are heavily involved with the Facility Master Plans and the Preliminary Project Analysis. Both steps involve

analysis which includes the manager's priorities. Local managers determine which projects should be requested. They recognize the overall effects of investment in facilities on meeting programming targets.

Maintenance

A balanced facilities management program must provide for both construction and maintenance. Maintenance does not take the place of renovation, replacement or construction of needed facilities. Maintenance is needed on any facility to sustain operations and will prevent premature need for renovation or replacement. Over time, however, high maintenance cost may provide justification for replacement.

Planning and programming for facilty maintenance also originates with local forest managers and is intended to respond to resource program support needs. Cost-effectiveness is a major consideration when planning maintenance as it is in construction.

Complications Affecting Facility Management

With a large number of facilities and buildings, the continuum of planning, design, construction/renovation, operation, and maintenance should, theoretically, be fairly predictable. However, budget fluctuations and program changes make it nearly impossible to sustain required levels of investment. The fact that decisions regarding major capital investments are outside the scope of agency authority further complicates facility planning and management.

Other factors strongly influence facility management. There is increased awareness of the need to preserve a portion of our facilities for their historic significance and value. Environmental issues, such as radon and asbestos, hazardous materials management, and indoor air pollution, have evolved into major facility management issues.

Mr. VOLKMER. The other thing that has come to my attention since I have become chairman of this subcommittee now, is as alluded to earlier, the number of administrative facilities that out there those forest rangers are trying to get by getting people to exchange land with them in order to get something they need. Because undoubtedly they know they cannot come up here and get the dollars for it. And some of those are 35- and 40-year old facilities.

Mr. OVERBAY. There are some very innovative folks out there.

Mr. VOLKMER. Yes. And I question the propriety of actually doing that. But I can see, as I delve further into this, your reasoning behind it and why they do it. Because I guess they feel that is the only way it is ever going to be done.

You earlier have talked in the research area about expanded perhaps research on the spotted owl. But then I look at the design capacity and occupancy rate reports on research facilities by station. I assume that would do spotted owl research in the Pacific Northwest, is that correct?

Mr. SESCO. That is correct.

Mr. VOLKMER. But I found outside of Bend, Oregon, that about everyplace you have out there is already filled up with people. Is that incorrect or correct?

Mr. SESCO. Yes. Our laboratories in the Pacific Northwest are pretty well filled to capacity at this point.

Mr. VOLKMER. Well, I see in Corvallis you have 195 percent of capacity; Grand, 100 percent; Olympia, Washington, 147 percent; and Wenatchee 144 percent; Bend, 86. Maybe you could put one more person at Bend.

I mean how are we going to do this additional research that needs to be done if we do not have any place to do it in?

Mr. SESCO. That is a very good point, Mr. Chairman. We own 51 laboratories, including our forest products laboratory. And these were built primarily 30 or 40 years ago to meet the needs of that time. And we are pretty stretched right now in terms of trying to initiate any new programs because of restricted facilities and laboratory space.

Mr. VOLKMER. I mean, there would not be much point—you could go down in Alabama in a couple places and do research on the spotted owl, but I do not know how good it would do down there. They have got a 65 percent net total occupancy rate. So I see where that is an additional problems.

Now, to talk about facilities, at my own University of Missouri we just had a water main break. And because of the fact that everything has to be cramped into small quarters, I understand there has been some pretty severe damage there. Is that correct?

Mr. SESCO. That is correct, Mr. Chairman. I think the earlier part of this month there was a break in a water line there, and they did suffer extensive damage. We estimate about $42,000, in addition to about 60 person days, to clean up that effort. There was considerable damage to files and photographs and some electronic equipment.

Mr. VOLKMER. Well, as I understand it, some of the equipment they did not even have room to put them on a lab bench, because

the lab bench was already filled up with equipment, and they had to put it on the floor because that was the only place to put it.

Mr. SESCO. That is correct.

Mr. VOLKMER. And this was some expensive equipment. And as a result of being there, it got damaged.

Mr. SESCO. That is correct, Mr. Chairman. Some was stored under tables, under lab benches, because of the lack of storage space.

Mr. VOLKMER. My time has expired, but I want to ask you about one other area. In the research facility construction area, in Arizona a couple years ago, you had difficulties with the University, is that correct?

Mr. SESCO. Yes. That is still an ongoing problem, Mr. Chairman.

Mr. VOLKMER. And if you are going to have an adequate research facility there, you are going to have to construct one, correct?

Mr. SESCO. That is correct, however, not there. We are looking at a possibility of moving up to Northern Arizona University because of the fact that we in essence do not have a home now at Tempe.

Mr. VOLKMER. Right, I understand that. Tempe told you they just would not have you.

Mr. SESCO. Well, not exactly. There happened to be a building called the Barry Goldwater Science and Engineering Center, which is being built right on top of the property that our building sits on.

Mr. VOLKMER. Well, that is what I mean. You are not going to have a place?

Mr. SESCO. That is correct. We are still in the facility at this point. But we are going to have to move.

Mr. VOLKMER. And this has been a couple years ongoing?

Mr. SESCO. Yes, it has.

Mr. VOLKMER. And you still do not have the funds in order to replace that at the University of Arizona?

Mr. SESCO. Not at this point. Mr. DeConcini has been working with GSA to see if we could get some kind of no-interest loan that we would pay back over a 20-year period. But right now we own the facility in Tempe. So we are looking at $600,000 or $700,000 a year from the Rocky Mountain Station budget to pay back for that facility. And that station, nor the total research budget, could handle that kind of an impact at this point.

Mr. VOLKMER. All right. The other point I would like to make—and then I will go to the next, final question—when you go through GSA and somebody builds a building for you, and then you lease it from them, or if you do what you are talking about, borrow money to pay back, and if we do not give you additional funds to pay that rent, that means you are going to have less funds out of a total amount appropriated in order to build other buildings elsewhere. Is that correct?

Mr. SESCO. That is correct. I might point out——

Mr. VOLKMER. So if you continue to do that, eventually all you are going to have money for is to pay rent and maintenance and forget construction, if you do enough of it?

Mr. SESCO. That is correct, Mr. Chairman.

I might point out that in research, when we maintain a facility or have to replace a new roof or bring the electrical system up to code, that that comes out of our program dollars because we do not

have any separate line item for maintenance. It comes out of program dollars.

So any time we have to repair a facility, it impacts the research program.

Mr. VOLKMER. Right. That is what I mean. And so the same thing happens, as I understand you have quite a few facilities that are in need of safety and health requirements, is that correct?

Mr. SESCO. That is correct. And that has been an area that our appropriation subcommittee has been pretty favorable to us in the last few years. We have gotten a few dollars for safety and health items.

Mr. VOLKMER. My time has long past expired. And I thank the rest of the subcommittee members for letting me go on. I now recognize the gentleman from California.

Mr. BROWN. Gentleman, getting back to questioning your research planning and facilities, I have always felt that the Congress did a fairly good job in providing you with the authority that you needed with an aggressive, long-range research program in the 1978 act. And I am pleased that you are engaging in the kind of long-range planning that you are doing. I frequently point to it without knowing all of the details of what you are doing as an example, of what other agencies should be doing. And unfortunately, not enough of it is being done.

I noticed that in making your plans you used the example of how you have changed your priorities, your list of priority research areas between 1988 and 1990. And as far as I can tell, that reflects a very keen awareness of the emerging global problem. I commend you for doing that, but I wanted to ask you: The process that you use in establishing these new priorities, do you have a strictly internal kind of an operation in which to do this? Does it include input from other outside parts of the scientific community? Just how does this reworking of priorities operate?

Mr. SESCO. Mr. Brown, it does include input from a variety of groups and individuals from outside of Forest Service research. For example, some areas that I am sure you are very familiar with, we rely on some of the priorities as expressed by the Joint Council on Food and Agriculture, the National Agriculture Research Committee, and the Cooperative Forestry Advisory Research Council.

We work very closely with the Department mechanisms for identifying research needs. We work very closely with the 61 forestry schools. We also have very close ties with the forest industry through the American Forest Council. There are many regional groups attached to American Forest Council, and we work very closely with them in identifying research needs.

As a matter of fact, we invite them to participate in our research reviews. Just recently we had a review of our research in the southern and southeastern station by a group of industry people. And we do take all of this input into consideration to build our priorities.

Mr. BROWN. And you think that system is working fairly well? I am more familiar with it as it applies to other kinds of ag research than to forestry research. I have heard some criticism and some compliments with regard to the system. I just wanted to get your——

Mr. SESCO. Yes. We think it is working very well. The problem now is that we usually end up with more priorities than we have resources to address them. But we think that process is working well.

Mr. BROWN. Now, I notice that for fiscal year 1990 you included the global climate change as your No. 1 priority. I do not know whether that means in terms of its importance or you just listed it in that order. But it is clear that global climate change has become a big ticket item for the entire administration. And the President is supporting it. And it is resulting in increased budget in the space area, for example for satellite sensors, and it is the subject of a very large international effort at the present time.

Tell me how your program ties in with the broader program on global change that is the subject of so much attention now, including the CO_2 buildup, global warming, ozone depletion, that sort of thing.

Mr. SESCO. I would like to ask Dr. Ross to address that, Mr. Brown.

Mr. ROSS. Mr. Brown, our program is a part of the total global climate program that has been put together by the Committee on Earth Science.

Mr. BROWN. Correct.

Mr. ROSS. The USDA program includes our entire Forest Service research efforts on global change.

Mr. BROWN. I forget t[illegible] numbers, but in my mind I seem to recall the global CO_2 buildup has been attributed in substantial part to deforestation that is taking place in various parts of the globe, such as the cutting down of Amazonian forests and so on. We do not have a deforestation problem in the United States, do we? Under our sustained yield policies, are we not maintaining a fairly constant inventory of timber resources?

Mr. OVERBAY. Generally in the United States we are growing more timber today than we are harvesting, particularly in the United States in the hardwood type, there is more growth than there is harvest. Of course, on the national forest lands, we do practiced sustained yields. So we are reforesting wherever we harvest.

There are some private lands that are being converted where they are harvesting, going into agricultural uses or in the subdivisions and what not. But overall, yes, we are replacing our forests.

Mr. BROWN. I do not want people to point the finger to us and say you are telling us in Brazil to quit cutting the forests, and yet you are going ahead and overcutting our forests, or something like that. That is not happening.

Do we have a component of our research program that may be aimed at other areas of the globe where the problem is much more serious? Do we have cooperative agreement that might help them to understand how our management practices can help them with their management practices?

Mr. SESCO. Mr. Brown, we have a considerable initiative now in tropical forestry at our Institute on Tropical Forests in Puerto Rico and our unit in the Pacific Islands. And a component of that would be dealing with management techniques and reforestation techniques that would be transferable to other areas, especially the

South American countries where a lot of the deforestation is occurring.

Mr. BROWN. Let me ask you about the closely related problem of biodiversity. I think the majority of the loss of genetic species around the world may be a result of the cutting of tropical rain forests, at least I have heard that stated. And I would like to know to what degree you have in the Forest Service a biodiversity research program that might be helpful in investing this on a global basis and whether or not you perceive any biodiversity implications from our own management factors? Are we reducing biodiversity by clearcutting, for example, or do we have any scientific base for answering questions of this sort?

Mr. SESCO. I will respond to part of that, Mr. Chairman, and perhaps Mr. Overbay could comment on another part.

Yes, we do have some research programs that are dealing with how to manage and maintain biological diversity. We have work at Rinelander, Wisconsin; Corvallis, Oregon; Berkeley, California; Rapid City, South Dakota; and Wenatchee, Washington. And specifically we are looking at determining species sensitivity to management activities. We are looking at appropriate population sizes so that we can figure out how to maintain viable populations, especially of wildlife.

We are defining critical habitat limitations, you know, where is that threshold for various species. And hopefully we will be able to verify and recommend some management prescriptions as a result of some of our work in biological diversity.

Mr. BROWN. Of course, this gets back to the endangered species problem.

Mr. SESCO. Yes, very closely tied together.

Mr. BROWN. Yes. All right, thank you.

Mr. OVERBAY. Mr. Brown, if I may, I would be happy to give you a copy of a recent publication that we have just issued talking about habitat futures which deals strictly with biological diversity and a number of the things that are going on, particular in the wildlife arena.

Mr. BROWN. I would appreciate having that. It will contribute to my own education.

Mr. VOLKMER. The gentleman from Washington.

Mr. MORRISON. No questions.

Mr. VOLKMER. The gentleman from Indiana.

Mr. JONTZ. Thank you, Mr. Chairman.

I would like to follow up on the question of the gentleman from California with regard to sustained yield in our national forests. There is some criticism of I think some draft forest plans with regard to assumptions made about rates of regeneration and growth. And it certainly is not hard to find some areas that have been harvested in our national forests where regeneration has not occurred nearly as quickly as what was hoped for.

I would like to ask whether you all are conducting some sort of research program to see that we have realistic information or accurate information to allow us to make realistic assumptions about regeneration and growth rates and whether we have perhaps been overoptimistic in the past with regard to those assumptions? Is there an ongoing research program in that area?

Mr. SESCO. We have some work going on in Redding, California in that area. I am not prepared to give you the details of that research. I can provide that for the record. But I know we are doing some work on regeneration and reforestation.

Mr. OVERBAY. Mr. Jontz, if I might add to that too, particularly on the assumptions and decisions that were made in forest plans and the assumptions on which areas were included in the suitable land base—and of course, one of the requirements was that we would be able to be reforest it in 5 years—we are required by the National Forest Management Act to monitor our activities. And we are doing that.

And if we find that some of our assumptions were incorrect, then we will make amendments to those plans.

Mr. JONTZ. Well, I appreciate knowing that. I think the definition of reforestation after 5 years, there is a certain definition that you are working with, that I appreciate certain assumptions go into that.

I guess my question really is directed toward long-term productivity of those areas and we are making decisions based on rotation cycles, which I am not sure are very realistic for many areas. I am not sure how far the law requires this monitoring process to go. But it seems to me that there is a need for some basic research on the issue that will allow us to make sure we are making realistic assumptions.

Mr. OVERBAY. There is always the opportunity to learn more. And I am sure that Dr. Sesco can tell about some more specific activities.

But I would like to point out that the decisions that were made in the forest plans, and particularly the decisions in regard to which lands were suitable for timber production and what the yields would be, and what the proper rotation age would be, et cetera, in almost all cases in different types, is based on research that has been carried on in the past, Forest Service research, whether it is in the hardwood type or out in the coast and the conifer types.

Mr. SESCO. Mr. Jontz, we have some information for you on long-term site productivity. I would ask Mr. Ross to give that to you.

Mr. ROSS. Mr. Jontz, you are absolutely correct. We do need to know an awful lot more about what happens to a particular forest site after management practices are carried out on it; how long can we sustain certain levels of good productivity. Right now our research organization, along with the national forest system, are joining together in developing a very extensive productivity study throughout the country. And we are hoping to be able to answer many of the questions that you bring up.

Mr. JONTZ. I appreciate that. I see that my time is about to expire.

I might mention one other concern I have with regard to productivity, and that is productivity on our private lands in this country.

Mr. VOLKMER. The Chair will yield the gentleman an additional 5 minutes.

Mr. JONTZ. I appreciate that. I do not think I need the additional time except to inquire perhaps as to whether it is also within the scope of what research the Forest Service may be doing on produc-

tivity. I am under the impression that virtually on a nationwide basis private forest lands are not producing what they could be. And as we see increasing pressure on public lands in different regions of the country, including my own, I think the importance of what is happening on the private lands becomes really critical. And I saw the research priority list included the Southern forest productivity, and I think that is very important.

My question is: Are we also looking at productivity on private lands as part of the research needs in other parts of the country, in hardwood forests in the Midwest and the East and also in the forests in the Pacific Northwest?

Mr. Ross. Yes, that is correct, Mr. Jontz. We will be including private land.

Mr. SESCO. Since over half of the commercial forest land in this country is owned by private individuals, it would be difficult for us not to have a major part of our research program directed toward dealing with the problems that exist on private lands.

Mr. JONTZ. Well, it would be. I am glad the research budget reflects a greater understanding of that than what some of the other portions of the budget for the Forest Service do. Because we have grossly neglected the productive capacity of our private lands when it comes to investing the dollars in a number of programs. I appreciate that our research understands the key role of those private lands.

Thank you. I yield back the balance of my time.

Mr. BROWN. Could I have one more shot.

Mr. VOLKMER. Yes.

Mr. BROWN. I want to commend you on the research priorities for 1990 as you have delineated them in your statement, Mr. Sesco. They are right on target with what I think is a general perception of national needs at the present time. I wonder if it would be possible for you to fill out in a little more detail the content included in those priorities and submit that to the committee if you could.

Mr. SESCO. Yes, I would be glad to do that.

Mr. BROWN. I am sure you are aware that the problem, for example, of water quality is going to be addressed probably by this committee in connection with the farm bill next year. We need some input as to what your targets are in terms of research there and what results you may have achieved, and what contributions the Forest Service can make to that overall very significant national problem. I think it would be very useful for the committee to have that additional detail if you could provide it.

Now, getting back to the global change issue, this is suddenly a politically popular thing, but I am looking at it from the standpoint of does this provide us a hook possibly to begin rebuilding the Forest Service research budget up to the level that might be considered more optimum?

And as I understand it—and I want you to correct me if I am wrong—you have Presidential leadership on this issue. He has announced his strong commitment to it. Do you have a mechanism which is coordinated by the President's science advisor through the FCSET committee, the Federal Committee on Science, Engineering and Technology, and then under that the Subcommittee on Earth Science, headed by Dallas Tech, as I understand it?

As I understand it, that mechanism allows for a cross-cutting analysis of budgets that contribute to the global change project. Am I correct in this?

Mr. SESCO. Yes.

Mr. BROWN. And the mechanism is such that it can interact then with OMB in terms of providing the resources and the balance needed for the overall program. So that to the degree Forest Service research is an important ingredient there, you could get a second look at your budgetary requirements through that channel as well as through your normal review channels through the Department and OMB?

Mr. SESCO. That is correct.

Mr. BROWN. I am on the right track here.

Mr. SESCO. Provided it clears the Department.

Mr. BROWN. Provided it gets past the Department.

Mr. SESCO. Yes.

Mr. BROWN. Well, we have a new Assistant Secretary who maybe is going to be much more sympathetic. I do not know.

What I am looking for is the possibility is that as we see a growing political priority on a national basis of this global-change issues, we might see it reflected in some corresponding increases in the component parts of that global-change budget which cut across a number of different agencies.

And I am interested in pursuing that as aggressively as possible. Because this is not only a national problem, but the President wants to display some international leadership in this so that Margaret Thatcher and Gorbachev will not upstage him in all these international meetings that are coming along. I want to see us benefit from this as much as possible.

All right, I think I understand the picture. And with a little more detail on what is included here, I think we might be able to be more helpful.

Mr. VOLKMER. Thank you.

I have a few more questions. We talked about the building needs and structures. We are using temporary structures out there and trailers, are we not?

Mr. OVERBAY. In a lot of cases where we have not had funds to replace structures, we have gone to temporary facilities, generally house trailers.

Mr. VOLKMER. Can you give me—if not right now, in writing later—about how many of these do we have where we should have a permanent structure, we have used a temporary structure or trailer just to fill the need for the time being?

Mr. OVERBAY. We have about 2,500 temporary facilities that really should be replaced with permanent facilities.

Mr. VOLKMER. 2,500?

Mr. OVERBAY. Yes.

Mr. VOLKMER. What I see is when are you going to be able to replace those?

Mr. BROWN. With an extra $27 million a year, they can do it in 10 years.

Mr. OVERBAY. At the rate over the past 10 years, it is going to take a long time.

Mr. VOLKMER. Probably you are still going the other way, are you not, adding more temporary to the list of temporaries you already have because you do not have the money for the permanent?

Mr. OVERBAY. We are continuing to add temporaries to meet our needs.

The other problem too, of course, is that in a lot of our locations where we have some fairly extreme weather conditions, house trailers do not last very long either. So those temporary facilities truly are temporary. And we just replace them with other temporaries.

Mr. VOLKMER. Right.

Now, the fact is there was testimony, Dr. Sesco, that we are a world leader in research. I am beginning to wonder how long we are going to be a world leader. In 1980 we had over 900 Forest Service scientists in research, did we not?

Mr. SESCO. That is correct.

Mr. VOLKMER. And right now we have around 700, is that correct?

Mr. SESCO. That is correct.

Mr. VOLKMER. How come we went from 900 to 700 if we are going to be a world leader?

Mr. SESCO. It is just a matter of having enough resources to maintain out scientific capabilities. As I displayed up here on our budget trends, rather than replace the scientists that retired, we chose to fold those funds into new equipment and so forth, to try to maintain our scientific productivity. So we have not been able to replace that scientific corps that we lost.

Mr. VOLKMER. So actually even though your dollars have remained basically static, the buying powers remain static, instead of being able to maintain the personnel that we need, you had to not replace some of those personnel because you had to have the equipment for those that are remaining scientists, for them to continue to do the research?

Mr. SESCO. That is correct, Mr. Chairman.

Mr. VOLKMER. It is a heck of a hard decision to make, is it not?

Mr. SESCO. Yes, it is.

Mr. VOLKMER. So our research effort is declining?

Mr. SESCO. Well, we have been able to maintain our productivity. I am a passionate advocate of research, and I would have to say there are a lot more needs out there that we have resources to meet.

Mr. VOLKMER. I mean, you heard today, just this morning, in California, in Oregon, these areas, we need to do additional research in, I look at the facilities, and I brought up that before, where are we going to get the scientists, how are we going to pay for the scientists? If we hire the scientists, then we have to let the facilities go and equipment go. What is the point in having a scientist if he has not any place to work or nothing to work with?

Mr. SESCO. I could not state it any better, Mr. Chairman. That is the dilemma that we face right now.

Mr. VOLKMER. All right. Then the final question that I have is to get us back in this world competition. There are other countries doing research too, are there not?

Mr. SESCO. Yes.

Mr. VOLKMER. What other countries are doing forestry research on a good scale?

Mr. SESCO. Some of the Scandinavian countries, Germany, France, many of these countries are ahead of us in some of our technology and forestry research. We have been made aware of the fact that some of these countries are plowing as much as 10 percent of their research budgets into new scientific equipment.

If we are going to maintain our competitiveness, we have got to do some of the same.

Mr. VOLKMER. In other words, they are looking at being able to take over some of our markets, is that correct?

Mr. SESCO. I would say so, yes.

Mr. VOLKMER. And in fact, have we not lost some of that market share?

Mr. SESCO. Well, as I pointed out a moment ago, we have. We have become a net importer of forest products, I think about a $6-billion deficit, as opposed to $1-billion surplus a few years ago.

Mr. VOLKMER. So we need to put money into it if we are going to get back to where we are competitive?

Mr. SESCO. That is correct.

Mr. VOLKMER. Last question—I did have one more. And it gets back to my area of the country. We have been talking here mostly about things that are referring to softwood. I want to talk about hardwood a little bit because we have got a lot of hardwood in Missouri and parts of the Midwest, and the gentleman from Indiana is laughing, but in parts of Indiana, and all through Kentucky and Tennessee and Arkansas and places.

We do hardwood research, but we do not have a lot of facilities for hardwood research, do we?

Mr. SESCO. Well, Mr. Chairman, the laboratory at Columbia is dedicated primarily——

Mr. VOLKMER. I know. That is one, that is one.

Mr. SESCO. And some of our laboratories in the northeastern United States, we have some of our laboratories in the Southeast, like in Ashville, that do some work on hardwood.

Mr. VOLKMER. They do some work.

Mr. SESCO. Yes.

Mr. VOLKMER. But it is not extensive?

Mr. SESCO. Not totally dedicated to hardwood, no. Stoneville, Mississippi also is dedicated in large part to hardwood.

Mr. VOLKMER. But the research facility at Columbia, as I pointed out before in the question before, is very small?

Mr. SESCO. Yes. The size of our facility there—we are housed in a university facility—has caused us to limit the type of research that we can do there. That is correct.

Mr. VOLKMER. So if hardwoods are part of the total equation also, as I see it both in domestic use and export, and yet we are very limited again in the research we can do because of the facilities that we have or do not have?

Mr. SESCO. Yes, that is correct.

Mr. VOLKMER. I have no further questions.

Does the gentleman from California or the gentleman from Washington?

Mr. BROWN. I just wanted to say a few words about California as long as you brought up Missouri, Mr. Chairman. But I will defer that for the time being.

Mr. VOLKMER. I was just trying to point out that if you look at the total equation—and I will admit that most of the production in this country is not in hardwood, but most of the research funds does go not to hardwood—actually the total amount is a small percentage of the total, is that correct?

Mr. SESCO. Yes. And the hardwood resource I think is by and large undervalued. It is certainly getting increasing attention by the forest products industry.

Mr. VOLKMER. Yes.

Mr. MORRISON. Mr. Chairman, we are training spotted owls now to live in hardwood areas so that you will get more research dollars that way.

Mr. VOLKMER. OK, thank you very much. I appreciate it. The panel has been very helpful. I would appreciate receiving the information on the facilities, et cetera, that we need to fix up, the whole list.

And by the way, I just do not want the list, where it is, but I would like to know what it is and how much it is proposed to cut to replace.

Mr. OVERBAY. Yes, sir.

Mr. VOLKMER. Thank you very much.

[Whereupon, at 11:50 a.m., the subcommittee adjourned, subject to the call of the Chair.]

[Material submitted for inclusion in the record follows:]

STATEMENT OF
JERRY A. SESCO, DEPUTY CHIEF
FOREST SERVICE
UNITED STATES DEPARTMENT OF AGRICULTURE

Before the
Subcommittee on Forests, Family Farms and Energy
and the
Subcommittee on Department Operations, Research, and Foreign Agriculture
Committee on Agriculture
United States House of Representatives

Concerning Oversight of Forest Research Activities

September 20, 1989

MR. CHAIRMAN AND MEMBERS OF THE SUBCOMMITTEES:

Thank you for the opportunity to provide an overview of the Forest Service Research Program. I am accompanied today by Eldon Ross, Associate Deputy Chief for Research in the Forest Service.

Legislative Authority for Forest and Rangeland Research

The Forest and Rangeland Renewable Resources Research Act of 1978 updated and broadened USDA's charter to conduct forestry research. This Act authorizes the Secretary to conduct, support, and cooperate in the research and technology transfer necessary to protect, manage, and utilize forest and rangeland renewable resources in the United States. It also authorizes a program of competitive research grants to government agencies, universities, and individuals which emphasize basic research.

These acts establish a long-term planning procedure, including identification of research needs, to guide and direct management of National Forests and Grasslands, as well as to encourage management of nonfederal and private forests.

Objectives of Testimony

There are four key points I wish to make:

1. Forestry research is a key to solving many of the most pressing national and global environmental problems we face today.

2. The Forest Service Research program, the largest forestry research organization in the world, has the flexibility to make immediate impacts on the highest priority national and global problems.

3. It is important for Forest Service Research to maintain a strong and viable base program to respond to changing priorities and future problems and to remain competitive in natural resources research.

4. Forest Service Research is engaging in a strategic planning effort to map out the direction of our research program to the year 2000.

Forestry Research Is The Key

Recent trends in lifestyle and resource management may lead to a shrinking forest and rangeland resource base, slower growth in resource productivity, a

reduction in biological diversity, and decreasing competitive capability for the U.S. forest products industry. An essential key to reversing these trends is research. Research provides the knowledge and technology needed so that forests and associated resources can produce more of the products and amenities society demands without sustaining damage to their productive potential.

The American lifestyle is imposing conflicting demands on this nation's natural resources. For example, society's fondness for automobiles and energy is causing air pollution that damages forest ecosystems. We like things fast and disposable. Pizza is delivered in a cardboard box within 30 minutes, and diapers padded with woodpulp are sold by the gross. Then, some people complain that too many trees are being cut, and we lack landfill space for solid waste. Society's conflicting demands are straining human and financial capabilities and limiting potential long-term productivity of forests and associated resources.

The Forest Service Research Program

The Forest Service Research program encompasses studies of timber, range, wildlife, fish, water, and air resources, as well as research on forest products, engineering, outdoor recreation, conservation, and protection of these resources from fire, insects, diseases, and pollution.

Forest Service Research is the largest forestry research organization in the world and covers the broadest array of topics. Our mission is to develop the knowledge and technology needed to increase environmental and economic values on all of America's 1.6 billion acres of forests and associated rangelands.

We employ 720 scientists and 1,700 technical and administrative support people. Last year, they produced 2,200 scientific and technical publications. Eight regional experiment stations and the Forest Products Laboratory are the administrative hubs of this effort. Our scientists are organized within 190 research work units at 74 project locations. The work is geographically dispersed to address regional and national problems, from the Pacific Islands to Maine and from the Arctic to the Caribbean Islands.

About 40 percent of our research program involves basic scientific research. An example of basic research is the study of the physiological and biochemical basis for the action of pheromones as natural control agents against forest insect pests such as the gypsy moth. The remainder of our program is devoted to applied research and development. Examples of applied research include the study of threatened, endangered and sensitive wildlife species such as the red-cockaded woodpecker and northern spotted owl, and the study of grazing strategies within riparian ecosystems.

Our program is also balanced among five broad functional areas as shown in the pie chart attached to my statement.

-- Forest Protection Research includes work in fire and atmospheric sciences and forest insects and diseases.

-- Resource Analysis Research includes forest inventories and analyses, economics, and recreation research.

-- Timber Management Research focuses on the growth and management of trees.

-- Forest Environment Research includes watershed management studies and studies to enhance and sustain wildlife and fish habitat and rangelands.

-- Forest Products and Harvesting Research concentrates on improving the utilization of wood and minimizing the adverse impacts of timber harvesting.

The balance between basic and applied research and among the five functional areas gives the Forest Service Research Program some unique capabilities for solving complex problems:

-- We take a broad ecological approach to research. Because many interconnections exist in an ecosystem, tracing the effects of a management action through all the interconnections is essential.

-- Many of our research work units conduct research in two or more functional areas. A multidisciplinary approach is essential for tackling complex problems.

-- Our organizational structure places scientists in close proximity to resource problems and the managers trying to deal with them. Scientists become intimately familiar with real problems, and they get quick feedback from managers on what works and what doesn't. This greatly stimulates innovation and hastens problem solution.

-- We have a long history of data collection and baseline records. Some databases date back as far as 1903 when some of the first experimental forests were established. Forest ecosystems are long-lived, and long-term data are needed to solve many of the complex problems society faces today. The long history of our research program and experimental forests has enabled us to develop a broad, stable, base program--a repository of long-term data and experience--ideally suited for rapid use in solving emerging problems and meeting changing priorities.

These fundamental attributes--a large, stable, balanced, and geographically dispersed program taking a multidisciplinary, ecological approach to problem solving--give us tremendous flexibility. Flexibility is an asset for any research organization for responding to changing national and regional priorities.

Our flexibility is best demonstrated in our Priority Research Program. This program identifies those research areas in which we respond to critical or emerging research needs. Let me compare for you our Priority Research Program for FY 1988 with that planned for FY 1990. The six priority research areas for FY 1988 included: (1) Forest/Atmospheric Interactions, (2) Wildland/Urban Interface, (3) International Trade in Timber and Wood Products, (4) Biotechnology and the Forests of Tomorrow, (5) Critical Wildlife and Fish/Timber Management Interactions, and (6) Southern Forest Productivity.

Contrast that with the program for FY 1990: (1) Global Climate Change, (2) Catastrophic Forest Fires, (3) Water Quality: Cumulative Effects from Forests

and Rangelands, (4) Expanding Economic Opportunities through New Wood Products, (5) Southern Forest Productivity, and (6) Threatened, Endangered, and Sensitsive Plant and Animal Species.

The difference reflects our ability to shift research efforts to concentrate on the highest priority national and global problems. For example, our emphasis on acid deposition in the Forest/Atmospheric Interactions program of 1988 was a precursor for the broader issues involved with Global Climate Change, a Priority Research Program for FY 1990. And the program emphasizing the critical interactions between forest management and wildlife and fish species has evolved into a priority program on Threatened, Endangered, and Sensitive Species.

The Priority Research Program demonstrates flexibility from two perspectives. First, we frequently reorient our base program to respond to emerging priorities. Second, we seek budget changes needed to accelerate research on the highest priority programs. In several instances, we have reprogrammed work in our base program to target Priority Research Programs, within existing resources.

In FY 1990, we will focus more than one-fourth of our total budget on the six Priority Research Programs. The President's budget requested $39.5 million for work on the Priority Research Programs. This is a 20 percent increase since FY 1988 for research on topics included in the FY 1990 priority programs. Compared with the 5-percent increase in base program funding since FY 1988, it is clear that the Administration and Congress have been allocating scarce funds to the highest priority research.

Maintaining a Strong, Viable Base Program

A stable base program has permitted the Forest Service to continue research on a broad array of problems over the past 50 years. When a new problem arises or an old one takes on higher priority, findings from our base program often provide an interim answer or suggest the most profitable directions for additional work. The knowledge and experience generated by our base program is largely responsible for the speed with which we can reorient our program. To retain flexibility and responsiveness, it is important to maintain a broad, diversified, and strong base program.

Forest Service research has and must continue to adjust program levels and priorities in response to the critical need to control Federal spending, while still maintaining a strong base program. The graph attached to my statement shows Forest Service research funds in constant and actual 1990 dollars for the period FY 1980-89. Although Forest Service research funding in actual dollars has risen from $109 million in FY 1980 to $138 million in FY 1989, constant dollars have remained essentially stable since FY 1980. This situation requires that the Forest Service annually select the highest priority research from competing priorities and manage existing research in the most cost affective manner.

Rather than compromise the quality of our science, however, we have reduced the number of scientists from 964 in FY 1980 to 720 in FY 1990, a decrease of 25 percent. Most of this reduction was achieved by not replacing scientists who retired. Fewer scientists means some low priority activities of work have been scaled back, stretched out, or terminated.

By reducing the number of scientists, we have been able to acquire the modern equipment necessary to operate at the frontier of science on the highest priority problems. However, we have postponed the purchase of modern equipment for some of our lower priority work.

In order to maintain our base program despite reductions in the number of scientists and postponing the purchasing of equipment for lower priority research, we have expanded our cooperative research with universities and other clients. Through cooperative agreements and post-doctoral temporary appointments, our scientists are better able to retain access to the latest equipment and thinking.

Planning for the Future

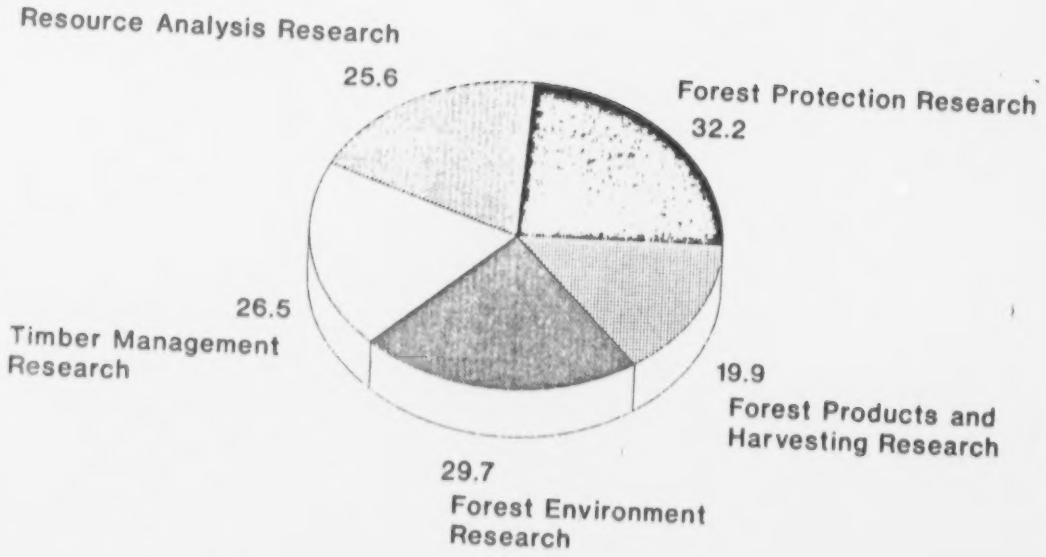
Mr. Chairman, given the importance of forestry research I have embarked on two separate but related efforts to examine the status of our research program and to take a look toward the future.

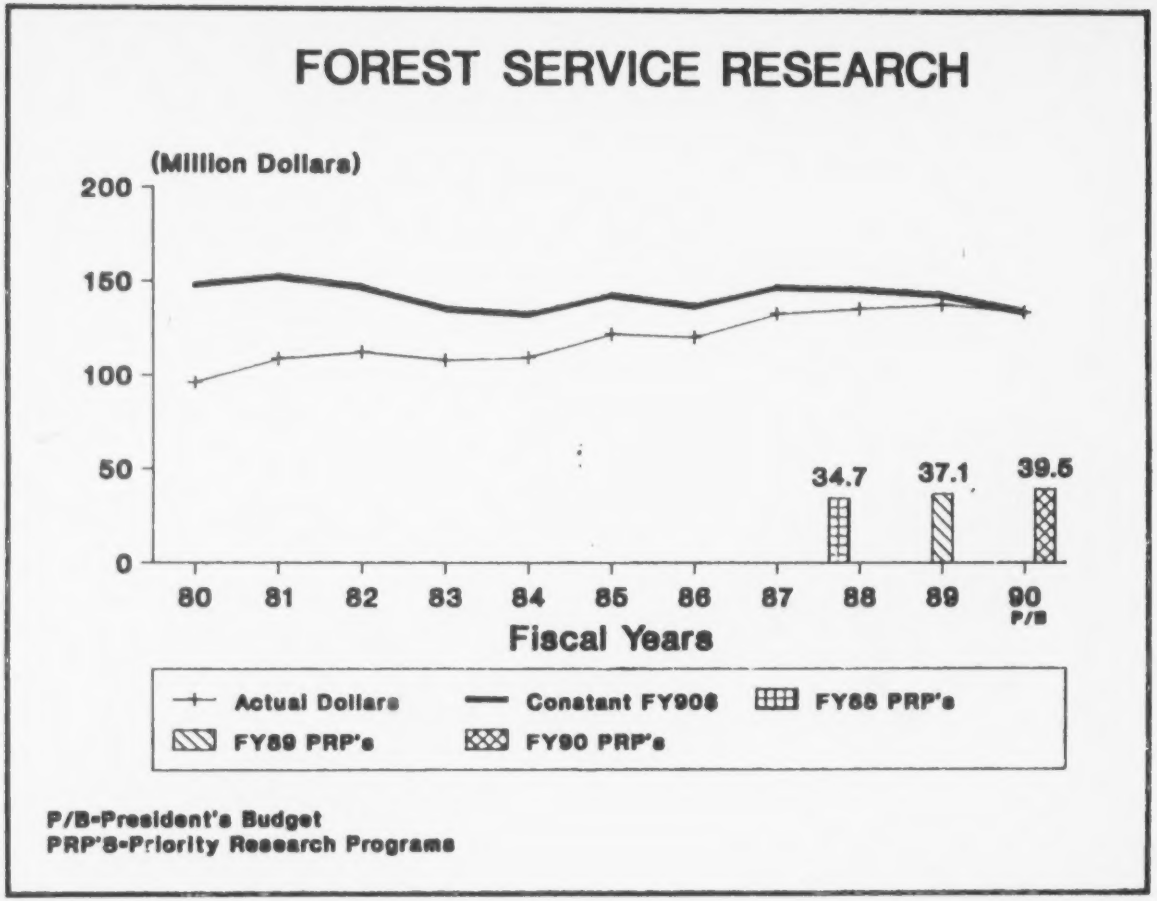
First, the Forest Service is supporting the National Research Council in a study of forestry research in the United States. This study is sponsored by the Forest Service, as well as by the Cooperative State Research Service, the National Association of Professional Forestry Schools and Colleges, and the Society of American Foresters. The objective of the study is to examine current trends in forestry research and future needs. A final report is expected by early next year.

Concurrent with the study by the National Research Council, I have engaged Forest Service Research in a strategic planning effort to clarify our research mission, assess customer needs, and set long-term direction and goals for our future research program. We are doing this because we want to improve both our ability to respond to emerging issues and our research competitiveness. This effort will improve the public's awareness and understanding of Forest Service Research, help us to become more proactive, and improve our scientific productivity and efficiency.

I would be happy to answer questions or provide additional information.

FOREST RESEARCH - BUDGET LINE ITEMS
FY 1990 PRESIDENT'S BUDGET
(Dollars In Millions)




FORECAST SERVICE RESEARCH
(Million Dollars)
200
150
100
50
0
34.7
37.1
39.5
80
81
82
83
84
85
86
87
88
89
90
P/B
Fiscal Years
Actual Dollars
Constant FY90$
FY88 PRP's
FY89 PRP's
FY90 PRP's
P/B-President's Budget
PRP'S-Priority Research Programs

HISTORICAL FUNDING FOR RESEARCH
USDA, FOREST SERVICE
September 15, 1989

FY 1980-1989
($ in thousands)

FISCAL YEAR	AGENCY REQUEST	DEPT. ALLOW.	PRES. BUDGET	APPRO-PRIATION
1989	149,125	138,714	129,279	138,267
1988	142,317	129,838	122,212	135,510
1987	123,845	123,845	111,481	132,721
1986	116,752	106,000	106,971	125,525
1985	115,087	103,211	103,070	113,826
1984	111,536	100,766	100,766	108,555
1983	125,966	125,966	97,990	105,021
1982	165,013	151,490	117,990	110,392
1981	153,914	115,064	124,100	122,200
1980	142,013	100,359	105,064	108,795

ATTACHMENT IV

3/17/89

FOREST SERVICE RESEARCH
CONSTRUCTION

AGENCY REQUEST FY 1990

Agency Request: $11,600,000

New Office and Laboratory at Columbia, MO	($3,700,000)
One-half cost of Laboratory at Tempe, AZ	($5,500,000)
Health and Safety Construction Items	($ 800,000)
Additional Construction Items	($1,600,000)
Total	($11,600,000)

Department Recommendation: $4,500,000

Health and Safety:	($800,000)
Facilities:	($3,700,000)
Total	($4,500,000)

OMB Recommendation: $2,600,000

Health and Safety:	($800,000)
Facilities:	($1,800,000)
Total	($2,600,000)

3/21/89

DESIGN CAPACITY AND OCCUPANCY RATE OF FOREST SERVICE-OWNED RESEARCH FACILITIES, AS OF OCTOBER 1, 1988, BY STATION.

Station	Location	Designed Capacity	Occupancy		Percent Occupied	
			FS Scientists	Cooperators	FS Only	Total
PNW	Fairbanks, AK	9	12	2	133	156
	Bend, OR	7	2	4	29	86
	Corvallis, OR	96	29	158	30	195
	Lagrande, OR	16	13	3	81	100
	Olympia, WA	15	8	14	53	147
	Wenatchee, WA	9	3	10	33	144
Subtotal		152	67	181	44	163
PSW	Arcata, CA	8	8	0	100	100
	Fresno, CA	5	4	0	80	80
	Riverside, CA	30	23	1	77	80
Subtotal		43	35	1	81	84
INT	Moscow, ID	30	14	10	47	80
	Boise, ID	8	8	3	100	138
	Bozeman, MT	8	2	8	25	125
	Missoula, MT	34	28	9	82	109
	Logan, UT	10	5	15	50	200
	Provo,UT	10	7	5	70	120
Subtotal		100	64	50	64	114
RM	Flagstaff, AZ	8	4	1	50	63
	Tempe, AZ	14	10	1	71	79
	Ft. Collins, CO	30	33	3	110	120
	Lincoln, NE	5	3	3	60	120
	Rapid City, SD	4	4	1	100	125
	Laramie, WY	4	5	1	125	150
Subtotal		65	59	10	91	106

3/21/89

DESIGN CAPACITY AND OCCUPANCY RATE OF FOREST SERVICE-OWNED RESEARCH FACILITIES, AS OF OCTOBER 1, 1988, BY STATION (Continued).

Station	Location	Designed Capacity	Occupancy		Percent Occupied	
			FS Scientists	Cooperators	FS Only	Total
NC	Houghton, MI	5	6	2	120	160
	Carbondale, IL	12	5	0	42	42
	Grand Rapids, MN	9	9	1	100	111
	St. Paul, MN	17	21	17	124	224
	Rhinelander, WI	20	10	7	50	85
Subtotal		63	51	27	81	124
NE	Hamden, CT	16	11	3	69	88
	Berea, KY	14	4	8	29	86
	Durham, NH	22	10	15	45	114
	Delaware, OH	42	21	9	50	71
	Warren, PA	7	6	1	86	100
	Burlington, VT	9	12	0	133	133
	Morgantown, WV	29	10	8	34	62
	Parsons, WV	10	7	3	70	100
	Princeton, WV	16	13	2	81	94
Subtotal		165	94	49	57	87
SE	Olustee, FL	9	4	5	44	100
	Athens, GA	28	19	16	68	125
	Macon, GA*	20	15	14	75	95
	Asheville, NC	21	11	10	52	100
	RTP, NC	11	10	2	91	109
	Franklin, NC	3	4	3	133	233
	Charleston, SC	8	6	2	75	100
Subtotal		100	69	52	69	121

*Macon has 4 additional positions approved.

3/21/89

DESIGN CAPACITY AND OCCUPANCY RATE OF FOREST SERVICE-OWNED RESEARCH FACILITIES, AS OF OCTOBER 1, 1988, BY STATION (Continued)

Station	Location	Designed Capacity	Occupancy		Percent Occupied	
			FS Scientists	Cooperators	FS Only	Total
SO	Auburn, AL	10	7	0	70	70
	Alexandria, LA	32	17	2	53	59
	Gulfport, MS	20	10	0	50	50
	Oxford, MS	13	5	0	38	33
	Starkville, MS*	5	9	0	180	180
	Stoneville, MS	22	6	1	23	27
	Rio Piedras, PR	10	5	4	40	80
	Nacogdoches, TX	12	4	11	33	125
Subtotal		124	63	18	51	65
FPL	Madison, WI	110	83	22	75	95
Subtotal		110	83	22	75	95
GRAND TOTAL		922	585	410	63	108

*The Forest Inventory and Analysis Research Work Unit was moved to Starkville to permit closer cooperation with the university and several of the scientists are housed in temporary buildings.

NOTE: FACILITY OCCUPANCY DATA WERE COLLECTED USING THE FOLLOWING DEFINITIONS:

1. Design Capacity is rated by the number of scientists the facility was originally designed to contain.

2. Scientists are research professionals, GS-11 and above, that are responsible for independent scientific study, as demonstrated through originality, judgment, and accomplishment, and are directly assigned to a Research Work Unit.

3. Cooperators are scientists and professionals who are not employed by Forest Service Research but occupy space in the Forest Service-owned research facility, such as employees of the Forest Service from branches other than Research, other Federal agencies, States, and universities.

4. Percent Occupied as calculated here is the total number of FS scientists plus cooperators as a percent of the design capacity of the facility.

STATEMENT OF
JAMES C. OVERBAY, DEPUTY CHIEF,
NATIONAL FOREST SYSTEM
FOREST SERVICE
UNITED STATES DEPARTMENT OF AGRICULTURE

Before the
Subcommittee on Forests, Family Farms, and Energy
and the
Subcommittee on Department Operations, Research, and Foreign Agriculture
Committee on Agriculture
House of Representatives

Concerning Oversight of Forest Service Facilities Management

September 20, 1989

MR. CHAIRMAN AND MEMBERS OF THE SUBCOMMITTEES:

Thank you for the opportunity to comment on Forest Service facilities.

As you know, the mission of the Forest Service is to care for the Nation's forests and rangelands and serve the needs of the people who own them. The Forest Service manages over 191 million acres of National Forest System lands, including 156 National Forests, 19 National Grasslands, 83 Experimental Forests and Ranges, and 13 Land Utilization Projects. We work with State forestry organizations to help private landowners apply good forest practices on their lands, and we do research to find better ways to manage and use forest and rangeland resources.

We carry out our mission through approximately 52 thousand full and part time and temporary employees. Like other agencies, we have traditional office space needs. However, we also have a variety of unique facility requirements that go beyond desks, computers, and meeting rooms. For example, unique needs include an 80-year-old log cabin providing security and protection to our employees 15 miles into the wilderness while they study grizzly bears or elk and moose habitat, or while they maintain trails.

There are many unseen but important factors -- such as safe water and sewer systems, waste collection and treatment, electrical distribution, and protection from hazardous conditions -- that must be considered in meeting our facilities needs. We have special storage and protection needs, from tree seedlings to hazardous materials such as pesticides and paint. Equipment for fire fighting and road maintenance requires a variety of service and storage facilities. We also serve our customers from our many facilities, giving information, directions, and inviting them in to be a part of management decisions.

Current Status of Forest Service Facilities

Facility development is funded primarily from the Facility Construction Appropriation. This appropriation provides money within three program areas:

(1) Fire, Administration and Other Construction (FA&O):

For construction of buildings and related facilities to support State and Private Forestry and National Forest System programs.

(2) Research Construction:

For construction of Research facilities

(3) Recreation Construction:

For construction of recreation facilities for public use.

As you requested, I will limit my discussions today only to FA&O and Research facilities. Forest Service facilities are located in 46 states and Puerto Rico. In total, we use approximately 16 thousand permanent and temporary buildings, trailers and leased spaces.

Over 40 percent of the facilities owned by the Forest Service are more than 40 years old. Some of these older facilities are not readily adaptable to new communications technology or modern research equipment, and they may not have fire access or access for handicapped people. The presence of asbestos, unsafe drinking water, and radon are also concerns. The Forest Service also uses trailers and other temporary structures to carry out its mission.

In FY 1989, approximately $10 million was appropriated to address these and other related concerns. Since FY 1980, over $140 million has been appropriated to finance priority facility improvement and health and safety needs. We will continue to review annually the highest priority needs consistent with recognition of the need to reduce the Federal deficit and to address competing priorities.

Finally, we lease approximately 15 percent of our total facility space. Our costs for leased facilities in 1987 were about $46 million, of which $19 million were expended through Forest Service leases for privately owned facilities, and $27 million were spent for the use of space managed by the General Services Administration (GSA). We will continue to review the most cost effective alternatives for occupying space and make appropriate recommendations in coordination with GSA.

Alternative Methods of Meeting Needs.

Our overall goal is to ensure safe, cost-effective, and usable facilities to support the Forest Service mission. We believe we have sound facilities management regulations and procedures in place to accomplish this. The most common method is to use facility construction appropriations to construct

replacement buildings and to improve existing buildings and related facilities.

To extend these appropriated dollars, we work with other agencies to build shared facilities in order to reduce construction costs and subsequent operating and maintenance expenditures. Where available and appropriate, we use Job Corps Center personnel and prison crews to construct facilities.

If we have savings in other programs, we use some of these other program dollars to support facilities construction within the $100 thousand congressional threshold for individual projects. By using these limited resource project funds to repair facilities, we are able to continue to provide for the health and safety of our employees and the public and also meet legal requirements such as providing adequate fire access and access for handicapped people.

Where appropriate, we use the Act of August 3, 1956, which provides us with authority to exchange unneeded administrative sites for other sites with newer existing facilities that will better serve our needs. Furthermore, all Forest Service land exchange proposals involving the acquisition of administrative sites are submitted to this Committee for oversight, regardless of value. We also informally brief Committee staff on all such cases prior to formal submission for Committee oversight.

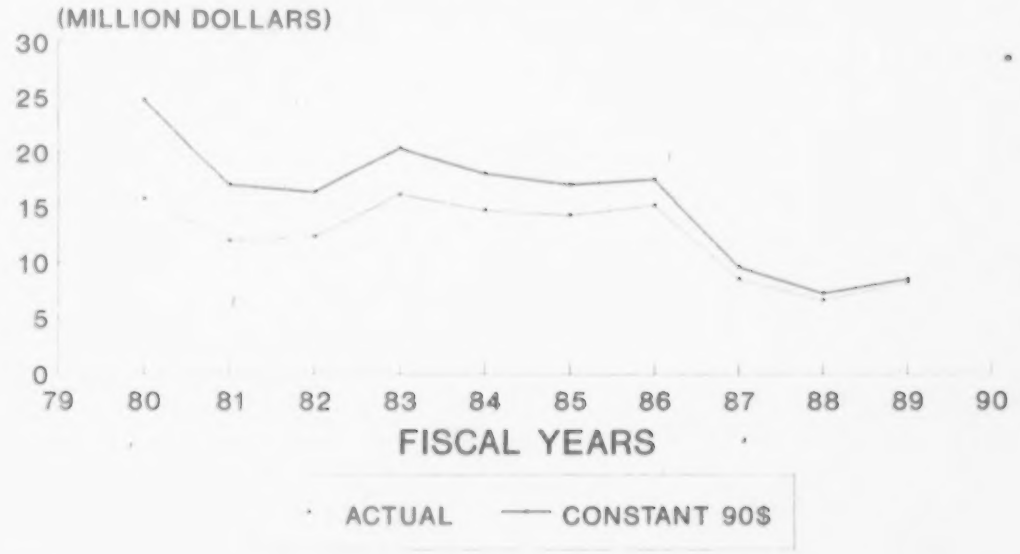
We have comprehensive planning and maintenance management systems that are used to develop annual programs, set project priorities, and execute programs. In addition, we have reduced the demand for space through staff reductions and the use of shared staff specialists among organizational units. Since 1980, we have reduced our permanent and temporary work force by roughly 6,400 positions.

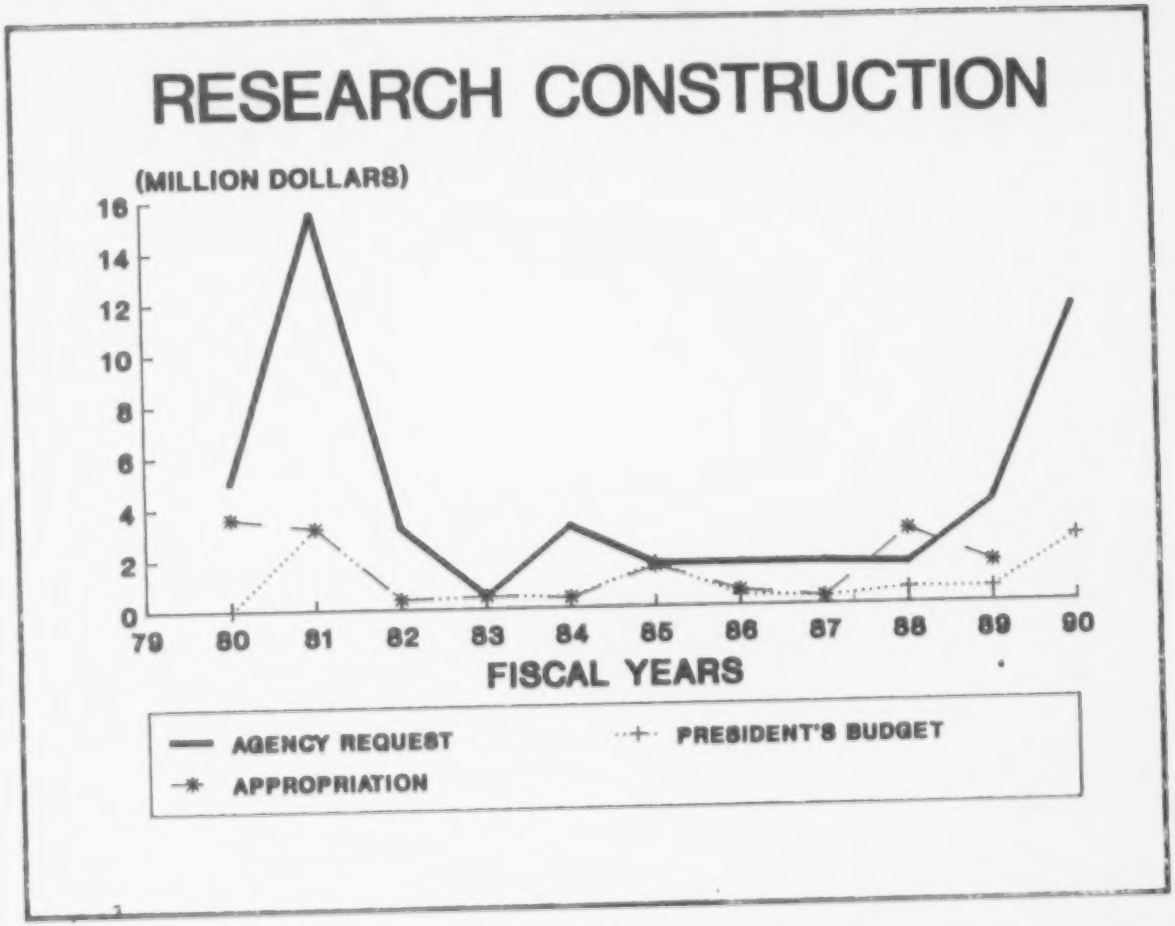
while maintaining our commitment to meeting our objectives, through part time employment and increased use of volunteers.

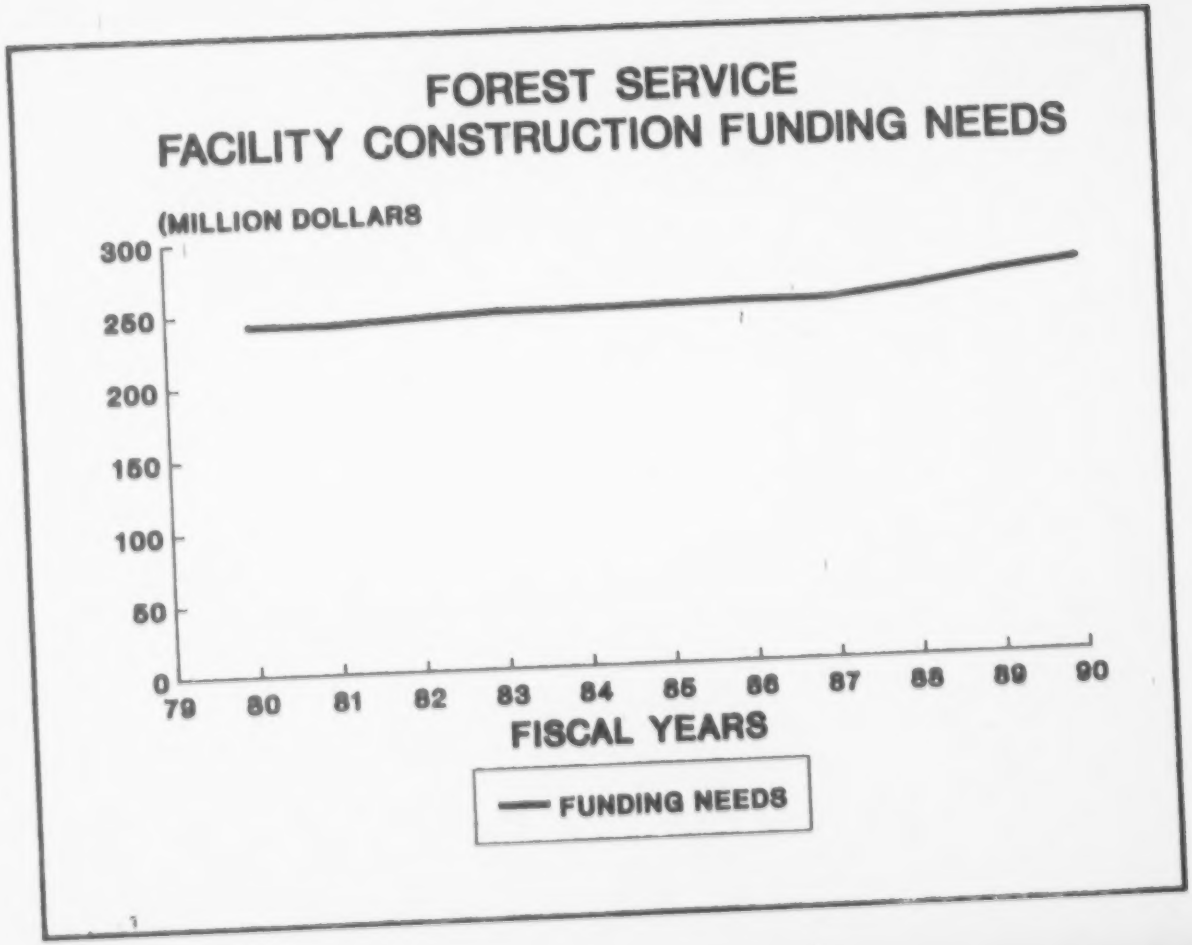
These methods have helped us meet our goals and obtain the maximum use of the amounts appropriated for facilities construction and maintenance.

I will be happy to answer any questions you may have.

FOREST SERVICE FA&O FUNDS
FY 1980 - FY 1989
(CONSTANT 1990 DOLLARS)




RESEARCH CONSTRUCTION
(MILLION DOLLARS)
16
14
12
10
8
6
4
2
0
79
80
81
82
83
84
85
86
87
88
89
90
FISCAL YEARS
AGENCY REQUEST
PRESIDENT'S BUDGET
APPROPRIATION


FOREST SERVICE
FACILITY CONSTRUCTION FUNDING NEEDS
(MILLION DOLLARS
300
250
200
150
100
50
0
79
80
81
82
83
84
85
86
87
88
89
90
FISCAL YEARS
FUNDING NEEDS

HISTORICAL FUNDING
CONSTRUCTION OF FACILITIES
USDA, FOREST SERVICE
September 15, 1989

FY 1980-1989
($ in thousands)

FISCAL YEAR	AGENCY REQUEST	DEPT. ALLOW.	PRES. BUDGET	APPRO-PRIATION
1989	18,560	18,560	7,125	9,871
1988	28,106	11,739	8,114	9,653
1987	29,781	13,562	6,836	8,989
1986	27,290	17,304	13,585	15,958
1985	20,406	14,839	14,819	16,051
1984	24,377	15,267	15,267	15,267
1983*	36,066	36,066	16,562	16,562
1982	31,045	24,291	14,245	15,087
1981	57,911	10,200	15,755	15,755
1980	38,000	8,581	12,670	19,278

*The numbers reflected in the Agency Request and Department Allowance ($36,066) includes Recreation Use Construction. Amounts specifically identified for Research and FA&O are not available for only those categories.

STATEMENT OF HONORABLE WALLY HERGER

FORESTS, FAMILY FARMS AND ENERGY SUBCOMMITTEE

SEPTEMBER 20, 1989

Thank you, Mr. Chairman.

I would like to commend the Chairman for holding this hearing to review forestry research and Forest Service facilities. Successful forestry research is essential to effective management of our National Forests. In light of the increasingly tight federal budget restraints imposed on all agencies in order to reduce the deficit, determination of research priorities becomes all the more important.

Upon reviewing the Fiscal Year 1990 proposals for Forest Research prepared by the Forest Service, I was especially

PLEASED TO SEE THAT PROGRAMS REGARDING CATASTROPHIC FOREST FIRES AND THREATENED OR ENDANGERED SPECIES ARE INCLUDED AMONG THE SIX PRIORITY RESEARCH AREAS. THESE MATTERS ARE OF PARTICULAR CONCERN TO MANY OF MY CONSTITUENTS FROM NORTHERN CALIFORNIA, DUE TO THE CATASTROPHIC FIRES WHICH SWEPT THROUGH MY DISTRICT IN 1987 AND THE CURRENT PROPOSAL OF THE FISH AND WILDLIFE SERVICE TO LIST THE NORTHERN SPOTTED OWL UNDER THE ENDANGERED SPECIES ACT. AS SUCH, I LOOK FORWARD TO THE TESTIMONY OF THE WITNESSES BEFORE US TODAY.

THANK YOU.